

CHAPTER III

LAND USE RECOMMENDATIONS

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ENVIRONMENTAL PLAN

INTRODUCTION

The Leesburg Area Management Plan's purpose is to apply the adopted goals and policies of the Resource Management Plan to a specific County area by proposing a future development and land use pattern. The Area Plan applies the general environmental goals of the RMP to the Leesburg area by recommending specific goals that address the significant environmental* features within the Planning Area.

One method of implementing the goals is to determine appropriate land uses for each significant environmental feature. Areawide and site specific strategies are recommended that will ensure that the Leesburg area's natural environment is adequately considered during the land use planning process. The procedure used to formulate these strategies is to research, map and understand to the greatest extent possible:

1. The individual features and processes that make up the natural environment;
2. The interrelationships and connections between these features and processes that combine to form one interdependent system;
3. The social and economic benefits and useful functions these features and processes provide to and perform for the citizens of the Leesburg area (i.e., drainage, sewage disposal, water supply, building and construction materials, wood products, recreation opportunities, etc.);
4. The effects caused by certain actions (i.e., urban development, agriculture) on the environmental features and processes.

* Significant environmental features are defined as: natural sites or features that have particular characteristics which should be preserved or specially managed because of their economic, educational or environmental importance to the welfare of the general public and the Leesburg Planning Area as a whole.

An example of these four points is illustrated in the case of woodlands on steep slopes as follows:

1. Both woodlands and steep slopes are individual features and are part of several natural processes such as the hydrologic cycle; oxygen-carbon dioxide cycle; soil formation-erosion process.
2. The woodlands and steep slopes are part of one system; if trees are cut down, the potential for higher runoff and erosion rates from steep slopes is increased.
3. Woodlands and steep slopes provide several useful functions and benefits to the area: they are often a scenic resource; they are essential elements of the natural drainage system; woodlands are a source of fuel or lumber.
4. Development by man can either enhance or damage the interrelated woodland slope system depending upon how well the system is allowed to continue to perform the useful functions listed in #3 above.

BACKGROUND

There are several distinct environmental features as well as various issues and problems, within the Leesburg area. Most of the area is part of the Triassic lowlands of the Piedmont physiographic province which has flat to gently rolling topography and elevations ranging from 250 feet to 400 feet. Just west of Town, the topography rises steeply from 400 feet to about 750 feet. This is the Catoctin Ridge, part of the Blue Ridge physiographic province. Another distinct area is the limestone conglomerate formation which underlies much of the area north of Leesburg. This type of limestone formation contains numerous springs, sinkholes and potentially a large quantity of groundwater, and is an extremely rare occurrence in Virginia east of the Blue Ridge Mountains.

Major soil types are: wet, poorly drained soil in the floodplains and low areas; belts of plastic jackland along Route 7 east of Town and in the southeastern portion of the planning area; limestone derived soil above the limestone conglomerate formation; soil with rock outcrops on the Catoctin Ridge and along Goose Creek east of Town; areas with loamy, well-drained soil, primarily southwest of Town in the Sycolin and Goose Creek watersheds. These distinctly different soil types have different problems and development suitabilities for urban land uses, agriculture, recreation, on-site sewage disposal and water supply.

There are six major watersheds within the planning area, all of which are part of the Potomac River Basin: Goose, Tuscarora and Sycolin Creeks; Limestone, Big Spring and Cattail Branches. Each of these watercourses has a designated 100 year floodplain and the present water quality within each varies depending upon the surrounding land uses.

Large blocks of forests and woodlands are found throughout the planning area in the floodplains and along the bluffs above watercourses, on the Catoctin Ridge, and in the flat, gently rolling sections north and south of Town. There are two major forest types: hardwoods and conifers. The hardwoods include oak, and hickory, and vary depending upon soil type and drainage. The conifers are mainly red cedar and Virginia pine.

Approximately 15% (7.6 square miles) of the total Leesburg planning area is nondevelopable land located within 100 year floodplains or on slopes greater than 25%.*

MAJOR ISSUES

The varied natural resources of the Leesburg area affect planning and land use decisions at both the areawide and site specific levels. For example, 100 year floodplains, steep slopes, and woodlands are scattered throughout the entire area and are interdependent parts of the areawide drainage and hydrologic cycle. These three environmental features have been mapped for the entire planning area and suitable land uses have been recommended which can easily maintain their basic functions. All development proposals (rezonings, site plans, etc.) for specific sites which have floodplains, steep slopes or woodlands should include maps of these features at an appropriate site scale and indicate:

1. The potential effects of the floodplain, steep slopes or woodland on the proposed development;
2. The impact the proposed development will have on the floodplain, steep slopes and woodland;
3. How the proposed development will incorporate the findings of #1 and #2 in the site design.

In summary, the significant environmental features found in the adopted goals should be considered at two levels:

* See Environmental Goals A and B, page 15.

1. In the Leesburg area planning process when making general land use recommendations; and
2. In site development planning for specific properties in the Leesburg area when designing, locating and constructing buildings and roads.

RECOMMENDATIONS

A. Areawide Recommendations

A means of implementing the environmental goals is to propose suitable land uses for each significant environmental feature. Following is a list of the significant environmental features addressed in the goals with alternative land uses. (Figure 7, page 34 shows the general location of these features.) Figure 8, page 35 shows their development suitability.

1. 100 year floodplain - passive recreation, agriculture, commercial forestry provided these activities are conducted in a manner that minimizes flooding, soil erosion and water pollution.
2. Wetlands as defined by U. S. Fish and Wildlife Service - passive recreation, buffer between incompatible land uses.
3. Slopes greater than 25% - passive recreation, buffer between incompatible uses.
4. Slopes 15% to 25% - rural residential on drainfield, passive recreation, single-family cluster development to preserve part of slope area.
5. Limestone conglomerate formation - rural residential on sites where subsurface investigations indicate that subsidence, drainfield failure or groundwater contamination is not a problem, active outdoor recreation, agriculture.
6. Class IV soil types - Development subject to special performance standards (see Environmental Goal H, page 15):
 - a. "Jack" soil (plastic clays with high shrink/swell potential) - agricultural and commercial/industrial uses on central sewer in areas of the plan designated for future urban development, pasture and hay uses in agricultural/rural residential areas.

FIGURE 7

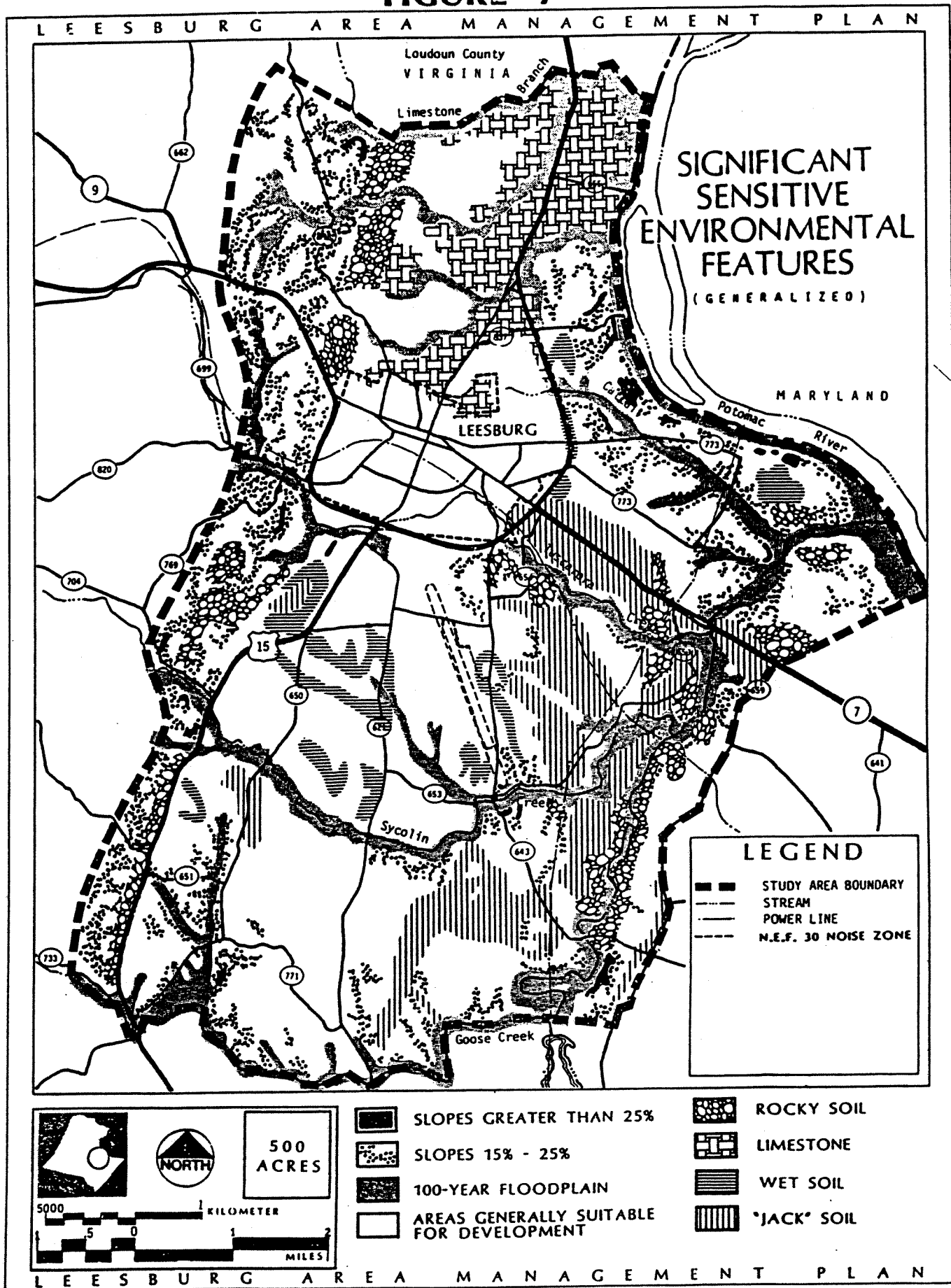
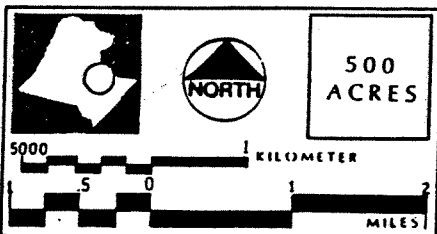
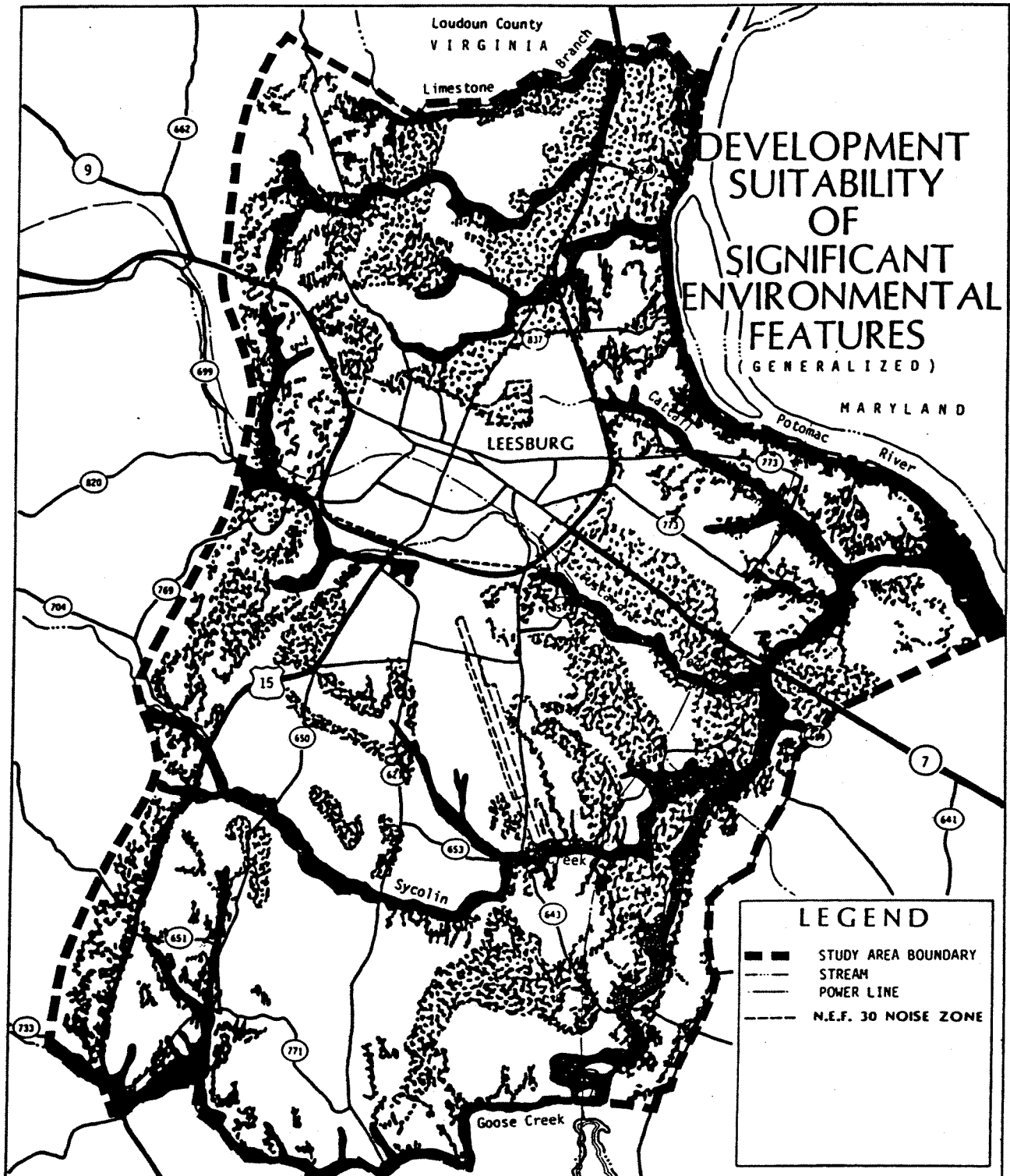


FIGURE 8

LEESBURG AREA MANAGEMENT PLAN



- AREAS WITH SEVERE LIMITATIONS FOR DEVELOPMENT (100-YR. FLOODPLAIN, SLOPES GREATER THAN 25%)
- AREAS SUITABLE FOR DEVELOPMENT WITH SPECIAL STANDARDS (CLASS IV SOIL, SLOPES OF 15%-25%, LIMESTONE FORMATION)
- AREAS GENERALLY SUITABLE FOR DEVELOPMENT (NO SIGNIFICANT ENVIRONMENTAL LIMITATIONS)

LEESBURG AREA MANAGEMENT PLAN

- b. Rock soil (rock outcrop land with more than 15% of the land surface covered by stone or rock) - commercial/ industrial uses on central sewer, undeveloped open space or passive recreation.
 - c. Wet soil (prolonged seasonal high water table less than 18" from the surface) - undeveloped open space, passive recreation buffer between incompatible uses.
 - 7. Forests/woodlands on flat and gently sloping land - carefully planned low density residential development which preserves many existing trees. (Preservation efforts should focus on medium age trees which are usually found within the 10" to 16" diameter breast height category.), passive recreation, commercial forestry, buffer between incompatible land uses, removal of poor quality stands in, appropriate areas for development.
 - 8. Forests/woodlands of the following types.
 - a. On slopes greater than 25%.
 - b. Within 100 year floodplains.
 - c. Significant woodlands or individual trees (defined by various factors such as location, size, species type, age, diversity, visual quality, historical or cultural importance, community perception).
- Recommendations for these three forest/woodland areas are: passive recreation/open space in a single-family residential development.
- 9. NEF 30 or greater noise zone around Godfrey Field - non-residential uses, active outdoor recreation, agriculture.*
 - 10. Highway noise zones (Route 7 Bypass and other areas) - adequate buffer zone of plantings, earth berms or setbacks.

* Godfrey Field - Leesburg, Virginia: Final Airport Master Plan; Henningson, Durham and Richardson; 1975; Sheet No. 4.

B. Issues and Recommendations by Planning District

The areawide development issues relating to the significant environmental features can also be examined by individual planning district. The following list of the planning districts includes the significant environmental features, the major potential problems and issues associated with development, along with recommendations that address these concerns:

1. White's Ferry:

a. Significant Environmental Features:

- i. Limestone conglomerate formation with numerous springs and sinkholes.
- ii. Limestone Branch, Big Spring and Potomac River watercourses and floodplains.

b. Potential Development Problems:

- i. Groundwater pollution or ground subsidence in the limestone area.
- ii. Deterioration of water quality in Limestone Branch and Big Spring (a State of Virginia designated natural trout stream) both of which drain into the Potomac above Leesburg's water supply intake.

c. Recommendations

- i. Any development in the limestone areas should be rural residential in character and located on sites where subsurface exploration shows that drainfield failure, subsidence or groundwater contamination is not a problem.
- ii. Best Management Practices* should be used to control nonpoint source pollution in both residential development and agricultural operations.

* Practice that is determined by State of Virginia to be the most effective practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals. (Source: Best Management Practices Handbook, SWCB, 1979.)

- iii. Point source discharges should not be permitted on the Potomac River, Limestone Branch, Big Spring or any of their tributaries upstream from the Leesburg water supply intake on the Potomac. However, beyond the ULL, point source discharges will be considered for non-residential uses: (1) in circumstances of failing septic drainfields, (2) when needed to ensure the continued viability of existing institutions, and (3) in cases where the location of a new institution in these areas would generate positive community benefits. The discharge must comply with the rules and regulations of the State Water Control Board and State Department of Environmental Health.

2. Catoctin Ridge:

a. Significant Environmental Features:

- i. Large areas with slopes 15% to 25% and greater than 25%.
- ii. Tracts of woodlands, primarily hardwoods.
- iii. Isolated pockets of rocky soil some of which are also subject to slippage (failure of slope causing collapse or landslide).

b. Potential Development Problems:

- i. Erosion of ridgetop slopes.
- ii. Soil slip or creep on some steep slopes.
- iii. Increased downstream flooding and runoff below ridge.
- iv. Disturbance of visual and scenic quality of ridge.

c. Recommendations:

- i. Rural residential development should be located in areas where slopes are less than 15%.
- ii. Require erosion control and stormwater management measures in all developments.
- iii. Existing woodlands on steep slopes should be preserved to the maximum extent possible and unvegetated steep slopes in developed areas should be planted to reduce erosion.

3. Town of Leesburg:

The Town of Leesburg is not included within the Area Plan, but development in other areas can affect environmental quality within the Town.

a. Significant Environmental Features:

Floodplains of Town Branch and Tuscarora Creek.

b. Potential Development Problems:

- i. Flooding and runoff increases from development on the Catoctin Ridge.
- ii. Flooding and runoff increases in the downstream Tuscarora watershed from development within the Town.

c. Recommendations:

As stated under Catoctin Ridge, developments on the Ridge should use adequate erosion control and storm-water management methods.

4. Edwards Ferry:

a. Significant Environmental Features:

- i. Potomac River and Cattail Branch floodplains.
- ii. Steep slopes along Potomac River, Cattail Branch and Goose Creek.
- iii. Woodlands of varying quality along Cattail Branch, Potomac River bluffs and floodplains, and Balls Bluff area.
- iv. Areas of wet soil.

b. Potential Development Problems:

- i. Reduction of scenic character of Potomac River bluffs.
- ii. Downstream impact on visual quality and recreational uses in lower Goose Creek, a State designated scenic river.

iii. Drainage and flooding problems in wet soil.

c. Recommendations:

- i. Require erosion control and stormwater management techniques in all developments.
- ii. Potomac River bluffs where slopes are greater than 15% should not be developed except at very low density and under the cluster provisions of the Loudoun County Zoning Ordinance.
- iii. Protect as many existing woodland areas as possible to aid in erosion and runoff control and maintain the scenic quality of the Potomac River bluffs.

5. Upper Tuscarora:

a. Significant Environmental Features:

- i. Upper Tuscarora/Dry Mill Branch floodplain.
- ii. Small area of steep slopes and woodlands east of Route 621, north of Route 654 and adjacent to the Route 15 Bypass.
- iii. Jack and rocky soil on eastern and western edges of the Planning District.

b. Potential Development Problems:

- i. Increased flooding, erosion and runoff within Upper Tuscarora Planning District from development on Catoctin Ridge.
- ii. Potential of new development increasing flooding, runoff and erosion in Lower Tuscarora.
- iii. Noise level increases along major roads such as Route 7.

c. Recommendations:

- i. Those listed under Catoctin Ridge are applicable here.
- ii. Proper stormwater management and erosion control methods in all developments.

- iii. Protect steep slopes and woodland areas mentioned above as visual buffer between future developments along Route 7 and those along Route 643.
- iv. Visual and noise buffering can be achieved through such land use techniques as the strategic location of visual screens, landscape buffers, earth berms, reverse frontage development and additional building setbacks from the road right-of-way. These techniques should be required along all arterial and major roadways and the W&OD Trail.
- v. Commercial/industrial uses in jack and rocky soil subject to special performance standards.

6. Lower Tuscarora:

a. Significant Environmental Features:

- i. Tuscarora Creek floodplain.
- ii. Wooded steep slopes south of Tuscarora.
- iii. Jack soil along Route 7.
- iv. Diabase geologic formation along Route 7 and adjacent to Goose Creek.
- v. Noise level increases along Route 7.
- vi. Rocky soil south of Tuscarora Creek.

b. Potential Development Problems:

- i. Building foundation and construction problems in jack soil.
- ii. Flooding and runoff increases from upstream development.

c. Recommendations:

- i. Commercial/industrial development in jack soil subject to special performance standards.
- ii. Protect wooded steep slopes south of Tuscarora as a scenic view from Route 7.

- iii. Locate potential sites for future quarrying within the diabase formation and protect quarry sites by adopting a Natural Resource Zoning Overlay District.
- iv. Visual and noise buffering can be achieved through such land use techniques as the strategic location of visual screens, landscape buffers, earth berms, reverse frontage development and additional building setbacks from the road right-of-way. These techniques should be considered along all arterial and major roadways, but should be required along Route 15, the Route 15 bypass, Route 7 and the W&OD rail.
- v. Require erosion control and stormwater management practices in all proposed developments.

7. Airport:

- a. Significant Environmental Features:
 - i. Possible future NEF 30 noise zone.
 - ii. Areas of wet soil.
- b. Potential Development Problems:
 - i. Airport noise impact.
 - ii. Development in areas of wet soil.
- c. Recommendations:
 - i. Restrict uses within NEF 30 noise zone to non-residential uses, open space or active outdoor recreation.
 - ii. Require special performance standards for development in wet soil.

8. Goose Creek:

- a. Significant Environmental Features:
 - i. Goose Creek and Potomac River floodplains.
 - ii. Jack soil and rocky soil.

- iii. Steep slopes along Goose Creek.
 - iv. Woodlands, primarily hardwoods.
 - v. Fairfax City water supply impoundment.
 - vi. Diabase geologic formation along Goose Creek.
- b. Potential Development Problems:
- i. Construction difficulties in jack and rocky soil.
 - ii. Impact of development on water quality of water supply impoundment.
 - iii. Effect of development on scenic character and recreation uses along Goose Creek.
- c. Recommendations:
- i. Commercial/industrial development in jack or rocky soil subject to special performance standards.
 - ii. Maintain adequate buffer of existing woodlands around water supply impoundment. Uses within the buffer zone must fulfill performance standards that protect the impoundment's water quality.
 - iii. Require all developments that drain directly into or are upstream of the water supply impoundment to use Best Management Practices, so that the water quality of the impoundment will be maintained.
 - iv. No point source effluent discharges should be permitted on any tributaries of Goose Creek upstream from the impoundment.
 - v. Locate potential quarry sites within the diabase formation near the existing quarry.

9. Sycolin:

- a. Significant Environmental Features:
- i. Sections of jack soil in eastern portion.
 - ii. Areas of wet soil.

iii. Scattered tracts of woodlands.

iv. Sycolin Creek floodplain.

b. Potential Development Problems:

Building and construction problems in jack and wet soil.

c. Recommendations:

i. Protect existing woods to maximum extent possible for use as a visual buffer between incompatible land uses, or as a potential source of firewood and lumber.

ii. Commercial/industrial uses subject to special performance standards in jack soil located in the northeast section of the planning district; pasture and hay uses in jack soil located in other areas of the planning district.

iii. Use of wet soil as buffer zone or open space, or require special performance standards for development in wet soil.

10. Oatlands:

a. Significant Environmental Features:

i. Goose Creek floodplain.

ii. Large areas of woodlands.

iii. Belt of jack soil east of Route 621.

b. Potential Development Problems:

i. Impact on water quality of the water supply impoundment located downstream.

ii. Effect of County landfill on surrounding residential development.

c. Recommendations:

- i. Require all developments with runoff draining into Goose Creek and its tributaries to use Best Management Practices to protect the water supply impoundment.
- ii. No effluent discharges should be permitted on any tributaries of Goose Creek upstream from the impoundment.
- iii. Use woodlands as visual buffers and maintain, as much as possible, the scenic character of Goose Creek.
- iv. Provide an adequate vegetated buffer around the landfill to help reduce dust and methane gas migration.
- v. Periodic testing should be performed on all wells located near the landfill to check for possible groundwater contamination.
- vi. Pasture and hay uses on jack soil.

C. Stormwater Management Analysis

Runoff from new urban/suburban developments can increase flooding, erosion, sedimentation and pollution of watercourses. A carefully planned stormwater management program can help minimize these problems. Loudoun County recently adopted a new 100 Year Floodplain Zoning Ordinance (January, 1981) and has committed funds in the last several years to map the County floodplains. These efforts to protect the floodplains and maintain the County's water resources in a healthy and balanced state will succeed only if stormwater management is part of the planning and design process for watersheds where future growth and development is proposed. The initial and ongoing costs of a stormwater management program are a necessary expense that should be shared by the public and private sectors to prevent property and road damage caused by flooding and erosion, as well as eliminate the need for costly improvements to improperly designed stormwater systems that can cause this damage.

The Leesburg Area Management Plan has recognized the importance of this issue in Environmental Goal F (page 15):

"Future developments in the Leesburg Planning Area should use stormwater management and drainage design practices that minimize flooding, soil erosion and water pollution and respect the existing topography to the greatest extent possible."

A stormwater management analysis was performed for the Leesburg Planning Area by comparing storm runoff figures for existing and proposed land uses in the Tuscarora watershed. Much of the watershed is presently woodland, cropland, pasture or idle land. The proposed land uses include commercial, industrial and residential development south and east of Town along Route 7 and Route 15. The buildings, roads and parking lots within the proposed new developments will increase the total amount of impervious land area within the watershed. This increase in impervious area will increase the amount and velocity of storm runoff that will flow into Tuscarora Creek by reducing the amount of water that presently infiltrates the soil.

The analysis was conducted with assistance from the Loudoun Soil and Water Conservation District using a nationally accepted methodology developed by the Soil Conservation Service.*

Major steps in the process were:

- (1) Division of the Tuscarora watershed into four sub-watersheds: A, B, C, D.
- (2) Classification of each soil type according to its infiltration characteristics.
- (3) Calculation of the number of acres within each existing and proposed land use.
- (4) Comparison of the amount of impervious surface area for existing and proposed conditions. The final result shows the peak discharge**for the two year, 10 year and 100 year storms for both existing and proposed land uses.

* Urban Hydrology for Small Watersheds, Technical Release #55, Soil Conservation Service, USDA, 1975.

** Highest amount of water runoff from a particular storm that flows into a watercourse, expressed in cubic feet per second.

Figure 9, page 48 locates the major drainage basins in the Leesburg Planning Area and the four sub-watersheds within the Tuscarora watershed (A, B, C, D). The following table lists the percent of impervious land area and the peak discharge for each sub-watershed:

TABLE 4
IMPERVIOUS LAND AREA AND PEAK DISCHARGE

<u>Sub-Watershed</u>	<u>% Imper- vius</u>	<u>Existing Land Use</u>			<u>% Imper- vius</u>	<u>Proposed Land Use</u>		
		<u>(CFS* Peak Discharge)</u>				<u>Peak Discharge</u>		
		<u>2 yr.</u>	<u>10 yr.</u>	<u>100 yr.</u>		<u>2 yr.</u>	<u>10 yr.</u>	<u>100 yr.</u>
A - 1,370 acres	0	248	596	1,128	No Change			
B - 650 acres	66	807	1,414	2,213	No Change			
C - 1,150 acres	6	225	503	913	17%	331	709	1,256
D - 1,800 acres	11	648	1,309	2,238	41%	1,577	2,909	4,690

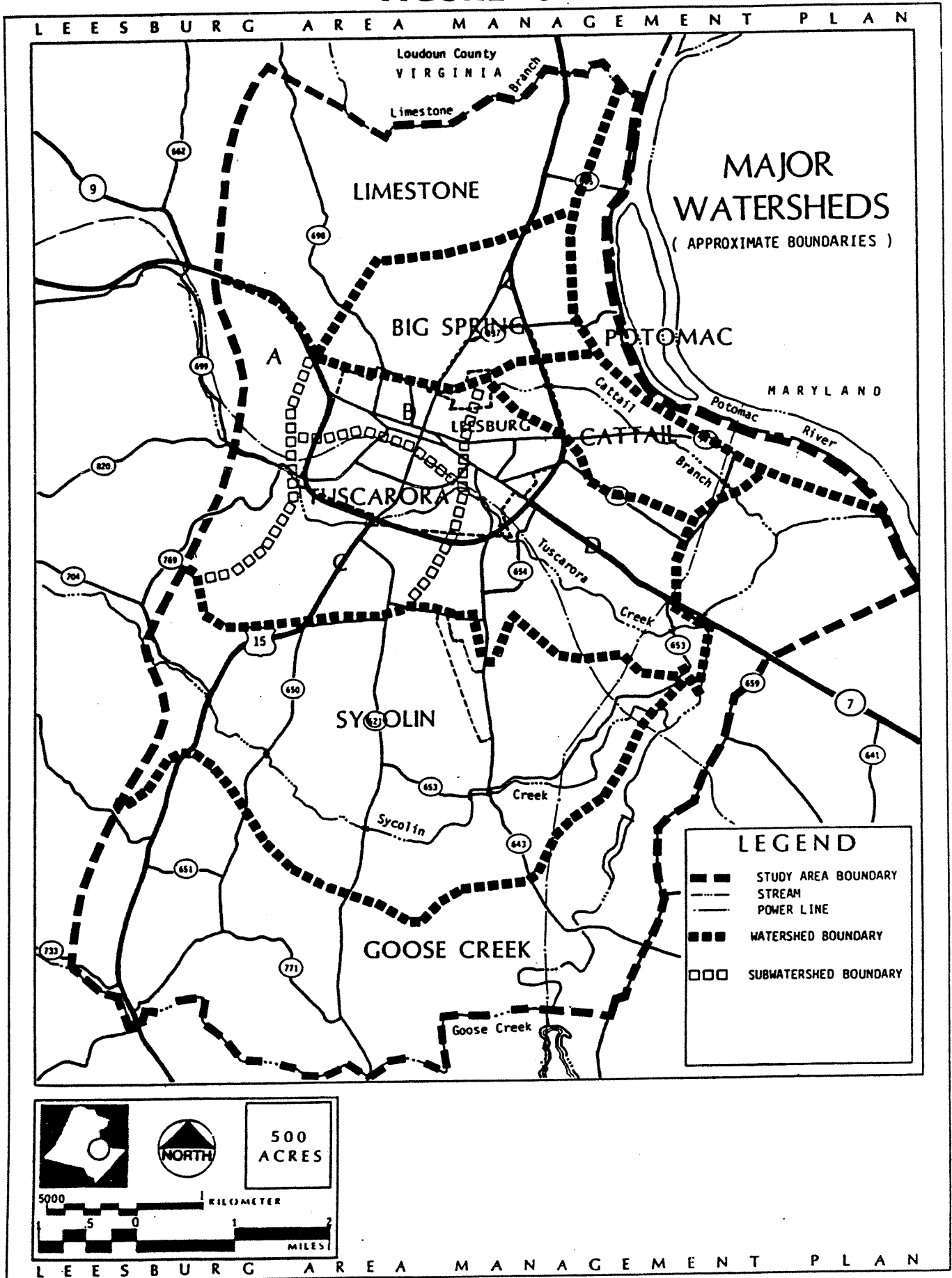
The Plan proposes no land use changes in the upstream sub-watersheds, A and B. The downstream sub-watersheds, C and D, however, show dramatic runoff increases. The proposed land uses will increase the peak discharge for the two year storm** in C by 47% and in D by 143%.

These figures indicate stormwater management practices and techniques will be necessary in all proposed developments planned for sub-watersheds C and D (See recommendations on stormwater management for Upper and Lower Tuscarora Planning Districts, pages 40 and 41). The stormwater management concept for a site can be initially proposed during the rezoning application stage and the specific techniques or structures can be developed for the preliminary and record plats.

* Cubic feet per second.

** Commonly occurring storm that largely controls stream channel erosion because storm flow fills the channel to the top of the bank. Stormwater management structures are designed to control the two year storm.

FIGURE 9



D. Air Quality Analysis

Air quality is generally not perceived as an issue in a low density, relatively small community such as Leesburg. The Town, however, is part of the larger Washington metropolitan region which has serious air quality problems due to high counts of ozone and carbon monoxide. Both of these pollutants are primarily caused by auto emissions. In addition, as Leesburg grows from about 10,000 people to about 18,000 in 1992, certain areas within the Town could experience air quality problems from increased local traffic.

Air quality will be an important issue in Virginia in 1982 as the Federal Clean Air Act requires the State Implementation Plan revision to be prepared by July 1, 1982. The Virginia Council on the Environment has stated that: "An urgent need exists to study the relationships between air quality control measures and land use."* In northern Virginia, rapid urbanization and the resulting increase in automobile use, will also increase air pollution. It is important for a growing urban fringe area such as Loudoun County to develop a better understanding of the relationship between air quality and land use growth patterns.

The Northern Virginia Planning District Commission (NVPDC) provided the County with useful information by conducting an air quality study for the Leesburg area (July, 1981). The study used a computer model to compare vehicle emissions generated by three basic future land use alternatives.**

The NVPDC study results indicate that clustered housing development produces lower air quality emissions than typical residential suburban development. This is because cluster development provides for closer proximity of shopping, educational and recreational facilities to residences and reduces the number of vehicles trips necessary by allowing for walking or bike riding to these facilities. The study shows that the use of planning techniques such as cluster development, planned communities and multiple use trails can help to reduce the three major harmful vehicle pollutants: hydrocarbons, carbon monoxide and oxides of nitrogen. Housing developments zoned PD-H should, therefore, have less of a negative impact on air quality than developments zoned R-1, R-2 or R-4.

* The State of Virginia's Environment, Council on the Environment, Annual Report, 1977.

** See "Issues and Options Report" available in Department of Planning, Zoning and Community Development.

AGRICULTURAL PLAN

INTRODUCTION

The Leesburg Planning Area has a significant agricultural industry with many large farms and about 11,000 acres of cultivated or pastured farmland. (See Figure 10, page 53.) Agriculture has historically been the largest and most basic industry in the County. It continues to be a major economic element in both the County as a whole and the Leesburg area, although urban growth is taking its toll, having caused substantial conversion of farmland to other uses during the last decade. In addition to the actual farming operations in its vicinity, Leesburg is a commercial and financial center for farmers and for farm support businesses in the area. This plan will deal with the land use implications of long term agricultural activities in the Leesburg area.

The soils in the area are generally good for crop and pasture uses. A large band of good agricultural soils runs north and south through the Leesburg planning area between Route 15 to the west and the diabase soils which lie to the east. (See Figure 11, page 53.) A significant amount of these good farming soils have already been subdivided into residential lots.

Agriculture can and should continue to be an important economic and industrial element in certain districts of the Leesburg Planning Area during the life of this Plan (10 years). The proposals of this plan will indicate where the County will place its priorities for encouraging agricultural land uses around Leesburg. Specific programs for farmland retention will be addressed in the forthcoming, County-wide Rural Land Management Plan.

The recommendations of the Leesburg Plan are meant to further refine and apply the policies which were set forth in the Resource Management Plan. The basic guiding principle of the RMP is to encourage the concentration of growth in and around existing communities, thereby reinforcing the compact, efficient pattern of growth which is historically evident in the County. In the Leesburg area, this would mean that planning recommendations should tend to permit growth within the Urban Limit Line surrounding the Town of Leesburg, but discourage growth in the more distant, rural areas, thereby keeping to a minimum the costs of extending and improving public facilities.

Agricultural uses will not, however, be discouraged from continuing within the Urban Limit Line until such time as their conversion to more intensive uses is appropriate.

The area plan goals and strategies for managing agricultural resources address the needs for new urban growth and farmland preservation as a balanced compromise. Certain areas are designated for utility extensions to provide for future growth (Tuscarora and Edwards Ferry Districts), and other areas are designated as priorities for farmland preservation efforts (Sycolin, Oatlands and White's Ferry Districts).

Generally, the goals and recommendations recognize that agriculture can and should remain a viable industry in the Leesburg area, even though some land will be converted to urban uses during the next ten years. The County will focus its farmland preservation efforts on those lands which are located predominantly in agricultural areas, while promoting residential and non-residential growth around the Town, where the urban services exist.

MAJOR ISSUES

The major issues in the Leesburg area revolve around the questions of where farmland conservation programs should be implemented, and what form these programs should take. Specifically, the major land use issues are:

1. Definition of the general priorities for farmland retention in the Leesburg area.

The goals of this Plan state that the priority areas are the White's Ferry, Sycolin and Oatlands Planning Districts.

2. Prohibition of sewer and water extensions from designated farming areas in the Leesburg Planning Districts.

In order to effectively carry out the goals of this Plan, sewer and water services should not be extended past the Urban Limit Line into the farming areas of White's Ferry, Sycolin and Oatlands Districts before 1992. (See Figure 10, page 53.)

3. Identification of the specific locations for major farmland retention efforts within each planning district.

The policies for defining specific areas for application of conservation programs will be formulated in the forthcoming Rural Land Management Plan.

4. Identification of the kinds of farmland retention programs which the County should enact in the Leesburg Area: compensatory (purchase or lease of easements), and/or regulatory (zoning).

Program implementations will be addressed in the Rural Land Management Plan.

5. Encourage amendments to state laws which will allow the use of growth management techniques such as transfer of development rights. Encourage state and federal legislative amendments to reduce the inheritance tax burden for farmland heirs.

RECOMMENDATIONS

A. General Areawide Recommendations:

1. REQUIRE THE CLUSTERING OF HOUSES IN DESIGNATED AGRICULTURAL OR FORESTAL AREAS

New residential development in agricultural areas could be required to cluster onto a small percentage of the site, thereby leaving the majority of the land open and available for farming.

2. ENCOURAGE THE DONATION OF CONSERVATION EASEMENTS TO THE COUNTY FROM OWNERS OF AGRICULTURAL OR FORESTAL LAND

The County could accept easements from interested landowners. The County would then enforce the provisions of these easements according to the specific criteria and terms of the legal agreements.

3. ENCOURAGE THE FORMATION OF AGRICULTURAL AND FORESTAL DISTRICTS

The County could urge landowners in designated agricultural areas to establish agricultural districts.

4. ENCOURAGE VOLUNTARY EXCLUSIVE AGRICULTURAL ZONES IN DESIGNATED AGRICULTURAL AREAS

The County could offer landowners the opportunity to join a voluntary exclusive agricultural zone which would allow only agriculturally related uses.

5. PRECLUDE THE EXTENSION OF CENTRAL WATER AND SEWER BEYOND THE URBAN LIMIT LINE AS DEFINED IN THIS PLAN

No sewer lines shall be extended into the three planning districts which are designated as priorities for farmland retention except those specific areas which are designated in this plan for pumped sewerage extension.

FIGURE 10

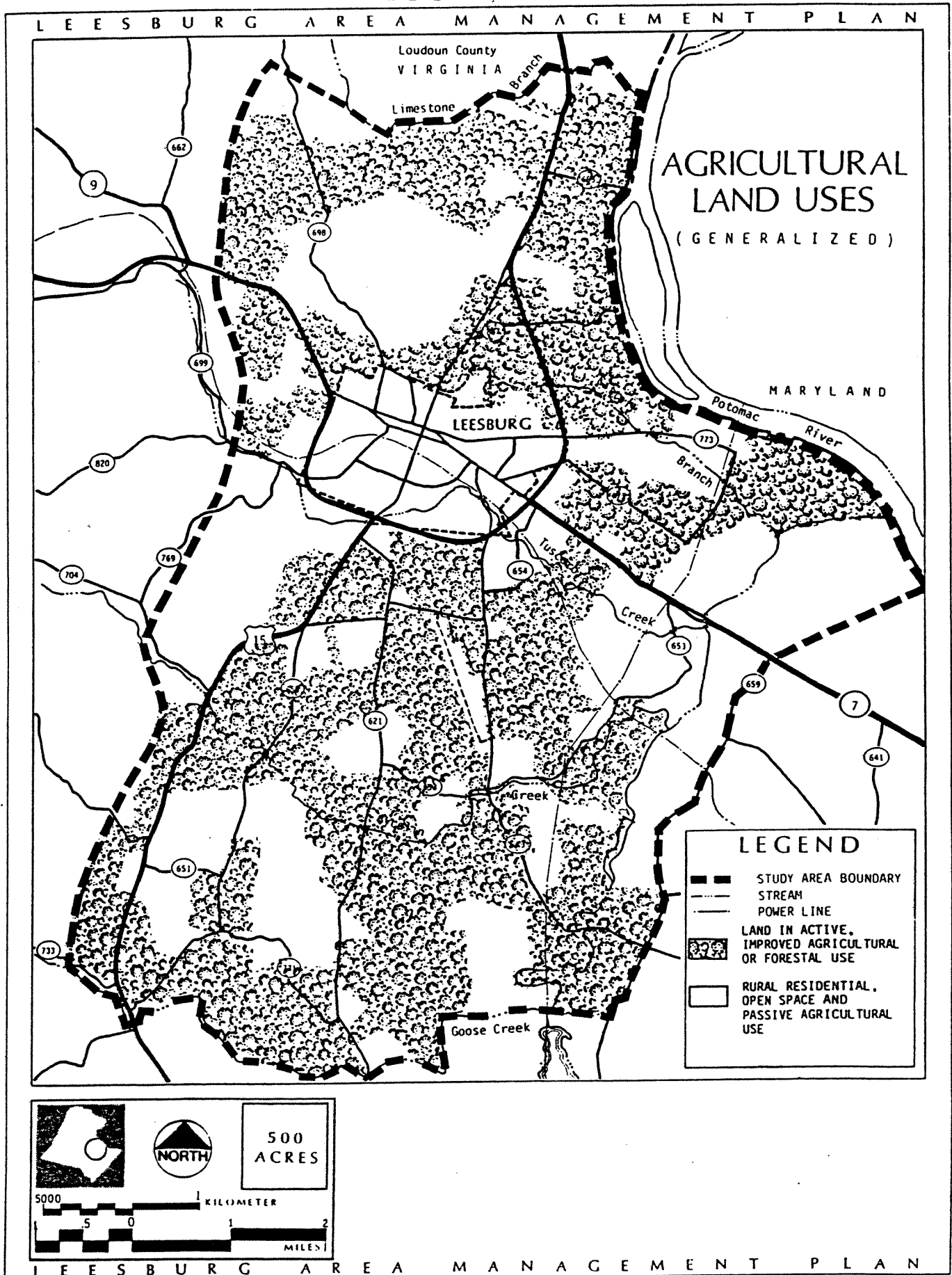
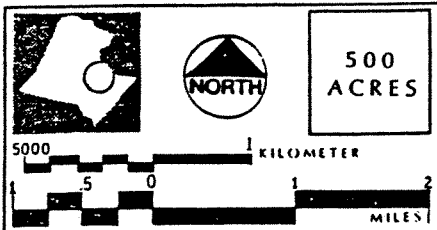
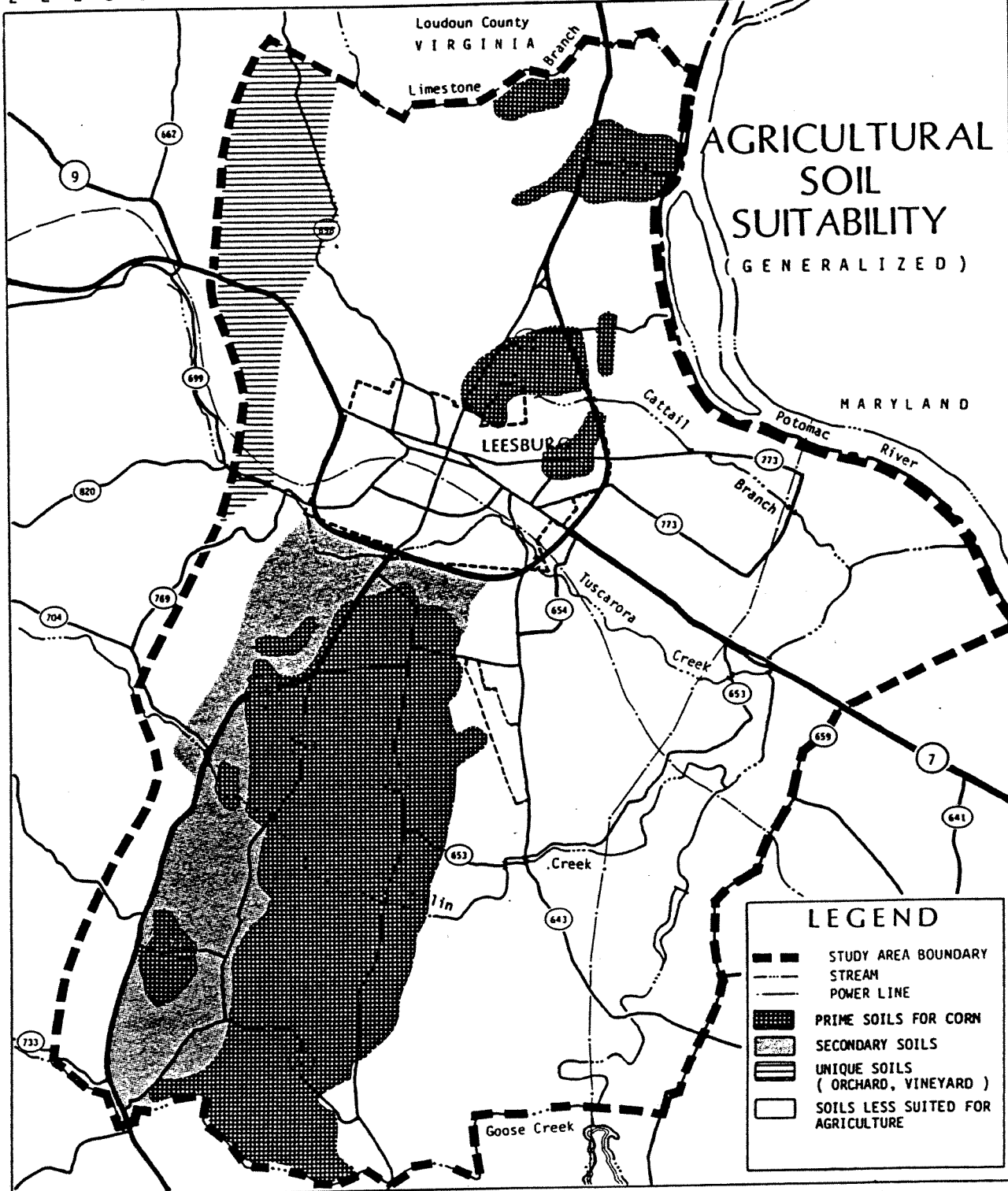


FIGURE 11

LEESBURG AREA MANAGEMENT PLAN



LEESBURG AREA MANAGEMENT PLAN

B. Potential Countywide Programs:

The following general program and policy recommendations are potentially countywide programs and will be dealt with in more detail in The Rural Land Management Plan. The programs could be applied to the Leesburg area, but only as part of comprehensive countywide programs.

1. REDUCE ALLOWED DENSITY OF RESIDENTIAL DEVELOPMENT IN THE SYCOLIN, OATLANDS AND WHITE'S FERRY PLANNING DISTRICTS IN THIS PLAN

The current allowed density in the three designated priority areas for farmland retention is one unit per three acres, A-3. In order to make cluster provisions more effective, the minimum lot size could be decreased, thereby reducing the allowed density to less than one unit per three acres.

2. PURCHASE OPEN SPACE EASEMENTS FROM OWNERS OF DESIGNATED PRIME AGRICULTURAL LAND.

The County could buy easements from landowners. These easements would run in perpetuity thereby keeping the land open forever. The easement purchase price would be roughly equal to the difference between total fair market value and use value.

3. LEASE OPEN SPACE EASEMENTS FROM OWNERS OF DESIGNATED PRIME AGRICULTURAL LAND

The County could acquire short term easements (5 to 20 years) from landowners in return for annual cash payments (or other terms) to the landowners.

4. REQUIRE SPECIAL USE PERMITS FOR ALL NON-AGRICULTURAL USES IN AGRICULTURAL AREAS

The County could amend the Zoning Ordinance so that non-farm uses in the A-3 zone would require special permits.

C. Recommendations by Planning District:

1. White's Ferry:

This district is a top priority for farmland retention efforts. Agricultural areas within the district will be defined in the Rural Land Management Plan. Sewer and water shall not be extended into this watershed except for the Scott Equine Medical Center and a small residential area fronting on the Old Waterford Road.

Easement programs may be applied here; clustering of residential units should be mandatory; allowable development density may be reduced and agricultural districts should be encouraged. A voluntary exclusive agricultural zone would be appropriate in this district. In addition, this district could be a potential sending zone for transferable development rights or a related kind of growth management program.

2. Catoctin Ridge:

Sewer and water should not be extended into this area. Agricultural districts should be encouraged; clustering should be required; reduced density may be appropriate on steep slopes, but easement purchase programs would not be appropriate in this area. Easement donations should be encouraged, however.

3. Town of Leesburg:

This area is designated for continued urban development, not for agricultural uses.

4. Edwards Ferry:

This district is not a priority area for farmland retention. Clustering should be required and easement donations encouraged, but no other farmland retention efforts are appropriate.

5 & 6. Upper & Lower Tuscarora:

These districts are not priority areas for farmland retention. Clustering should be encouraged and easement donations accepted, but no other farmland retention efforts are appropriate. This district could be a potential receiving zone for transferable development rights.

7. Airport:

Not a priority for continued agricultural land uses.

8. Goose Creek:

This district is not a priority for farmland retention efforts, but farming should still be encouraged by requiring clustering, precluding sewer and water extensions and accepting easement donations.

9. Sycolin:

This district is a priority area for farmland retention. Agricultural areas will be identified in the Rural Land Management Plan. Sewer and water facilities should not be extended into this area before 1992, clustering should be required, allowable density may be reduced, easement donations should be encouraged, easement lease and purchase may be appropriate here and agricultural districts should be encouraged. In addition, a voluntary exclusive agricultural zone would be appropriate in this district.

10. Oatlands:

This district is a top priority area for farmland retention efforts in the area. Agricultural areas will be identified in the Rural Land Management Plan. Sewer and water should not be extended here. Clustering should be required. Agricultural districts should be encouraged, development density may be significantly reduced. Easement donation should be encouraged and easement purchase or lease may be appropriate in this district. A voluntary exclusive agricultural zone would be appropriate in this area. In addition, this district could be a potential sending zone for transferable development rights or a related kind of growth management program.

HERITAGE RESOURCES PLAN

INTRODUCTION

The Leesburg Planning Area is rich in tangible resources which give evidence of the local cultural heritage. In addition to the historic fabric of downtown Leesburg, there are many significant sites and structures scattered throughout the area. Land use planning should strive to preserve such structures from degradation as the character of the Leesburg area changes.

BACKGROUND

About 60 of these sites have been identified by the Virginia Historic Landmarks Commission.* Most are privately owned but only four are within any County designated historic district.

Most of these sites are house and farm structures, but there are other kinds of elements as well, including mill sites, remains of canal locks on Goose Creek, churches, ruins, and a Civil War battle site. There are also some potentially valuable archaeological sites in the area.

MAJOR ISSUES

The major issues regarding heritage resources include the following:

1. Priorities for preserving historic and scenic resources in the Leesburg area are needed.
2. Policies and regulations should be instituted to ensure that new facilities and structures will sensitively accommodate and protect the existing heritage resources.
3. The County government should play a strong role in encouraging preservation of heritage resources in the Leesburg area.

* Loudoun County Historic Site Inventory, of the Virginia Historic Landmarks Commission, by John G. Lewis, former Regional Representative.

LAND USE RECOMMENDATIONS

There are three kinds of priorities for heritage preservation efforts. The first basic priority for preservation efforts should be for those approximately 60 sites in the area which have been identified and surveyed by the Virginia Historic Landmarks Commission although several of these structures have already been destroyed. The current V.H.L.C. inventory of historic sites and structures in the Leesburg area (outside corporate limits) has been compiled, surveyed, researched and recorded by the Virginia Historic Landmarks Commission. This list is only a large sample of sites and the selection of particular sites is not based upon a rigorous or quantitative ranking system. It does, however, represent the judgement of the V.H.L.C. Field Representative as to those sites which are either highly significant in an architectural or historical sense, or are imminently threatened with destruction, or both. The Virginia Historic Landmarks Commission is an agency of the Commonwealth of Virginia with headquarters in Richmond.

The second kind of priority should be for those sites which have structures which are in good condition or which have remains that may have significant educational or archaeological value.

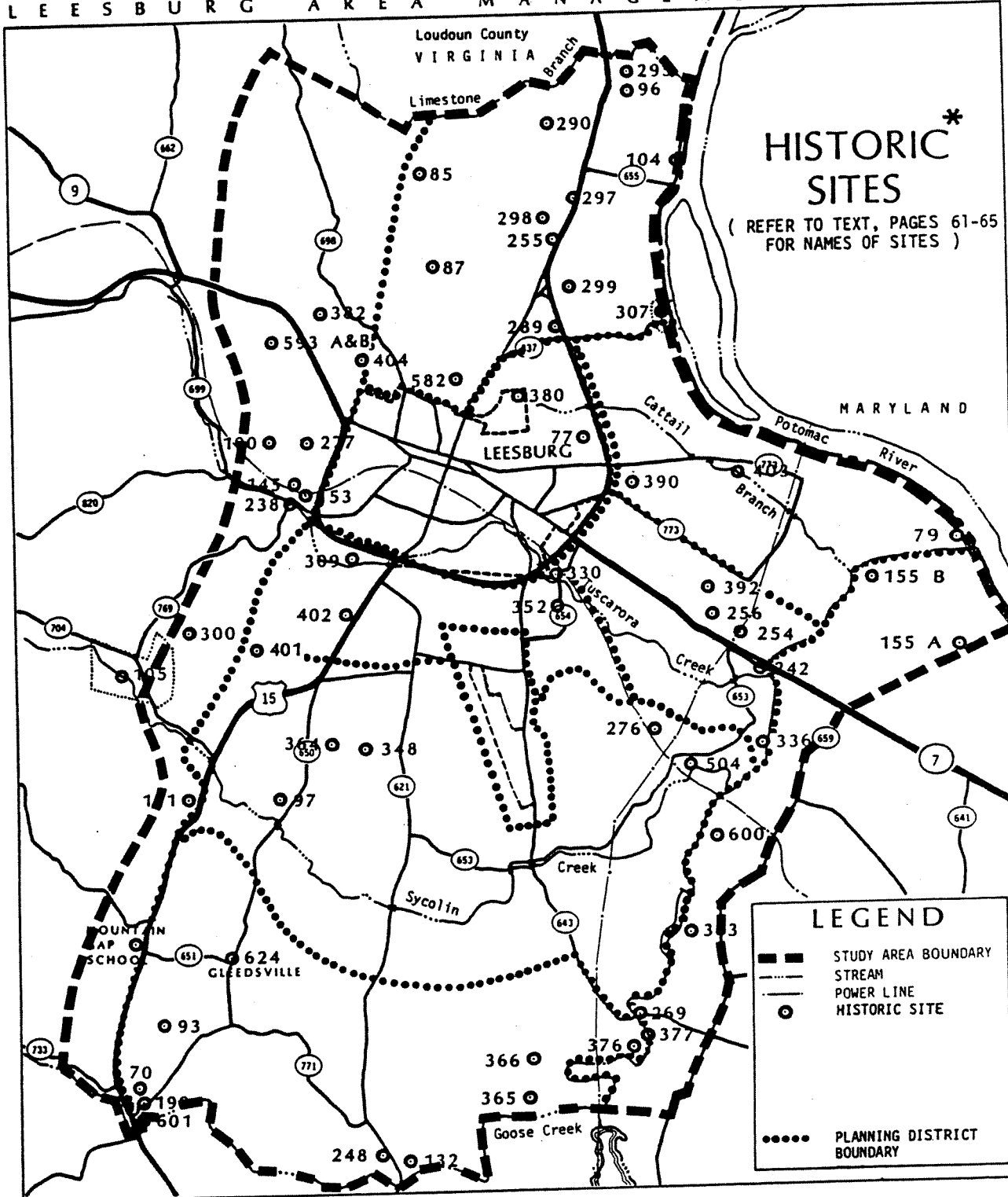
The final priority should be for those sites and structures which are most vulnerable due to encroaching development or whose owners lack the financial resources to protect them from other kinds of physical or economic threats.

These priorities will often overlap and sometimes conflict, but taken together, they provide the guiding direction for preservation efforts in the Leesburg area.

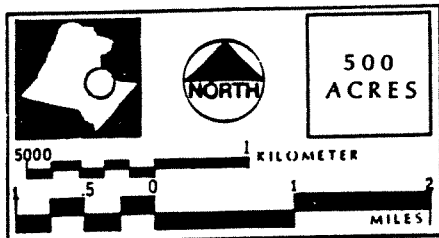
Generally, the historic elements in the Leesburg area are rather spread out and not clustered together in areas that would easily lend themselves to inclusion in a County designated historic district. The County can, however, designate individual historic sites under its Historic District Ordinance. There are various methods which could be used to help preserve these resources, such as easements, revolving funds, fee simple purchase, State and National Register designation, and sensitive site development practices when building new structures adjacent to designated historic sites. The County should consider giving density credits to developers who give easements or otherwise preserve significant historic resources within or adjacent to new developments.

FIGURE 12

LEESBURG AREA MANAGEMENT PLAN



* FROM INVENTORY COMPILED BY THE VIRGINIA HISTORIC LANDMARKS COMMISSION



LEESBURG AREA MANAGEMENT PLAN

Recommendations by Planning District:

1. White's Ferry:

Priorities for preservation efforts. Sites at the following locations:*

- a. Limestone Quarter - #295, private residence
- b. White's Ferry - #104
- c. Raspberry Plain - #290, private residence
- d. Wynkoop House - #297, private residence
- e. Springwood (House) - #298, institutional, former residence
- f. Big Spring - #255
- g. Rockland - #96, private residence
- h. Little Spring Farm - #299, private residence
- i. Dry Hollow Farm - #289, private residence
- j. Balls Bluff Cemetery (Property of U.S. Government) and the 80 acre battlefield site (privately owned)
- k. Locust Hill - #85, private residence
- l. Greenwood Farm - #582, private residence
- m. Morven Park (State and National Register) - #87, museum, former residence

Recommendations:

- 1. The County should designate Morven Park and the Balls Bluff Cemetery and 80 acre battlefield as historic site districts as provided for by the County's Zoning Ordinance.

* Numbers correspond to Figure 12, page 60. Loudoun County Historic Sites Inventory, Virginia Historic Landmarks Commission, John G. Lewis, former Regional Representative.

2. Preservation easement donations should be sought by the County for all sites listed above except that White's Ferry should be a secondary priority for easement acquisition.

2. Catoctin Ridge:

Priorities for preservation efforts. Sites at the following locations:*

- a. Echols Tenant House - #382 A.
- b. Elmwood - #382 B
- c. Ft. Johnson - #404
- d. Shenstone, Main House - #593, private residence
- e. Shenstone, Original House - #100, private residence
- f. Graydon - #277
- g. Dry Mill Farm - #145, private residence
- h. Myers House - #153, private residence
- i. Dry Mill Bridge - #238, owned and maintained by VDH&T
- j. Bradfield Heights - #300, private
- k. Woodburn (State and National Registers) - #105, private residence
- l. Shadow Mountain - #111, private residence
- m. Mountain Gap School - National Trust for Historic Preservation, museum

Recommendations:

1. The County should designate Woodburn as a Historic Site District as provided for in the County Zoning Ordinance.
2. The County should seek easement donations from the owners of all the sites listed above.

* *ibid.*

3. Leesburg:

The Town of Leesburg will carry out preservation efforts for this district. The County should strongly support, encourage and cooperate with the Town in its preservation efforts.

Sites within this district which are on the VHLC Inventory and The State and National Registers are:*

- a. Paxton Home (Carlheim) - #380, Children's Home
- b. Exeter (State and National Registers) - #77, destroyed by fire

4. Edwards Ferry:

Priorities for preservation efforts. Sites at the following locations:*

- a. Cattail Ordinary - #403, private residence
- b. Archaeological site near Goose Creek - #79

Recommendations:

The County should seek easement donations on the above sites, particularly the archaeological site

5&6. Upper & Lower Tuscarora:

Priorities for preservation efforts: sites at the following locations:*

- a. Ft. Beauregard - #352
- b. Woodlea - #401, private residence
- c. Greenway - #402, private residence
- d. Lombardy Farm - #392, private residence
- e. Caradoc Hall - #256, private, vacant
- f. Stone Harper House - #254, private, vacant

* ibid.

g. Eastbound Goose Creek Bridge on Route 7 - #242,
owned by VDH&T

h. W&OD Trail - #276, park

Recommendations:

The County should seek easement donations for those properties listed above, except for the W&OD Trail which is owned by the Northern Virginia Regional Park Authority.

7. Goose Creek:

Priorities for preservation. Sites at the following locations:*

- a. Coton - #155A, owned by Xerox Corporation
- b. Forrest Farm - #600, private residence
- c. Luten Bridge - #269, abandoned
- d. Canal lock sites on Goose Creek - #155H, ruins

Recommendations:

The County should seek easement donations from owners of the above properties.

8. Airport:

None

9. Sycolin:

Priorities:*

- a. Dunrobin - #364
- b. Bleakhouse Farm - #348, ruins
- c. Rokeby (State and National Register) - #97, private residence

* ibid.

Recommendations:

1. The County should designate Rokeby as a Historic Site District.
2. The County should seek easement donations on the above listed properties.

10. Oatlands

Priorities for preservation efforts. Sites at the following locations:*

- a. Gleedsville, Village of - #624
- b. Church of Our Saviour (Episcopal Church) - #70
- c. Oatlands (National Trust for Historic Preservation) - museum
- d. John O'Daniel Sons - #248
- e. Morrisworth - #366, private residence
- f. Murray's Ford - #376 A, private residence
- g. Cochran's Lock & Mill Site - #377, ruins
- h. Little Oatlands - private residence
- i. Oatlands Hamlet - private residence
- j. Oatlands Mill Site
- k. Oatlands Miller's House

Recommendations:

The County should seek easements on the above listed properties except those owned by the National Trust for Historic Preservation and Little Oatlands and Oatlands Hamlet which are already protected by preservation easements.

*ibid.

RESIDENTIAL PLAN

INTRODUCTION

The Leesburg area is anticipated to be one of the prime growth areas in Loudoun County in the next decade. There are some 4,100 housing units in the Town of Leesburg and in the surrounding planning area and of these approximately 3,660 are located within the Town or adjacent to it and are connected to Leesburg's water and sewer utilities.

The Leesburg Planning Area and the Town of Leesburg can expect to grow by some 1,500 - 2,500 new units in the next ten years, assuming past County growth distribution patterns and trends continue. (Of these units, approximately 120 - 200 per year would be located in or immediately around the Town of Leesburg.) The Resource Management Plan and the area specific goals suggest that this growth should be encouraged to locate in or immediately around the Town of Leesburg as part of the growth management philosophy embodied in the RMP. These residential goals and the proposed strategies to realize them will be outlined in this plan.

BACKGROUND

A. Residential Development

A principal theme of the Resource Management Plan is the concept of centralizing residential, community facility, commercial and employment centers in and around existing communities in Loudoun County. Achieving this goal would reduce the costs of serving the new developments with the necessary community services. Clustering of community functions and residential growth would furthermore reduce the travel costs.

There are approximately 25,400 acres of agricultural/rural residential zoned land in the Leesburg area. Most of this land is outside the Upper Tuscarora and Edwards' Ferry Districts. In these two districts some 2,500 acres of land are zoned R-1 or single-family, one acre lot minimum, with smaller amounts of land zoned R-2, one-half acre lot minimum, (185 acres) and R-4, one-quarter acre lot minimum (116 acres). In addition, some 71 acres of land are zoned multi-family/townhouse/garden apartments.

In contrast to this extensive amount of residentially zoned land, less than 10% of the area has actually been developed for residential use. With sewer extensions, the Upper Tuscarora and Edwards' Ferry Districts can accommodate extensive residential growth. South of Leesburg in the Country Club area some 480 units, half single-family half multi-family units, have already been developed with town water and sewer. In the Upper Tuscarora

District further south of Leesburg, there has been limited one-acre single-family development with individual wells and septic systems along Routes 654, 621 and 643. A similar type of housing has developed north of Leesburg off Route 15 in the northern part of Edwards' Ferry and southeastern section of White's Ferry. In all, approximately 200 dwellings have developed in recent years in the Leesburg area independently of town water and sewer, many of them in the Sycolin and Oatlands Planning Districts.

B. Zoning Patterns and Proposals

In the past ten years, Loudoun County has been approached with a number of land development proposals within the Tuscarora and Edwards' Ferry Districts. Table 5, page 68, summarizes the major proposals and their disposition. It is evident from the table that the area immediately around the Town of Leesburg has already been subject to many land use actions which constrain and will condition future land use decisions in the area.

TABLE 5

RESIDENTIAL DEVELOPMENT PROPOSALS IN THE IMMEDIATE LEESBURG (TOWN) AREA

<u>Proposed Name</u>	<u>Existing Zoning</u>	<u>Proposed Zoning</u>	<u>Requested # Units/ Density</u>	<u>Acreage</u>	<u>Disposition</u>
A. <u>Rezoning</u>					
Cobern ZMAP 199	R-1	PDH-12	1,504 units/3.4 per acre	470	Application
Carrvale* (Annexed Area)	R-1	R-4	potential 700 units/ 2.1 per acre	322	Annexation awarded by Court
Oliver Hoffman ZMAP 288	A-3	R-4	600 units/ 2 per acre	300	475 units/ 1.6 per ac. approved in a composite R-4 and R-2 development
B. <u>Subdivisions</u>					
Meadowbrook	R-1		70 units/ 0.3 per acre	200	Pending
Country Club Apts.	PDH-30		231 units/ 14.4 per acre	16	Built Out
Country Club and Leesburg Estates	R-4		385 units/ 2.7 per acre	144	65% built
Potomac Highlands	R-1		282 units/ 0.6 per acre	475	Pending

The above proposals include garden apartments, single-family detached units on one-quarter acre, one acre and three acre lots, town-houses and multi-family units.

* The annexation of 1980 changed the allowed zoning density from one dwelling unit per acre to four dwelling units per acre.

POPULATION PROJECTIONS

The Loudoun County Department of Planning, Zoning and Community Development has projected future residential growth from building permit activity over the past decade. The number of dwelling units projected over the coming decade (1982-1992) is dependent upon many complicated factors from economic trends to rezoning activity within the Urban Limit Line surrounding the Town of Leesburg. Low density residential growth in the planning area will continue to be popular on a lot by lot basis; large low density subdivisions not within the urban boundary will be limited under the precepts of this plan. (See Table 6)

The projections assume a constant household size of 2.95 persons per unit and a vacancy rate of 3%. The overall county growth rate was seen as 4.2% in the 1980-1984 period, 3.5% in the 1985 - 1989 period and 3.1% thereafter. The Leesburg Area and Town are assumed to capture some 21% of this growth.

TABLE 6

LEESBURG AREA GROWTH PROJECTIONS

<u>Date</u>	<u>Additional Units</u>	<u>Total Units</u>	<u>New Population</u>	<u>Total Population</u>
1980	175	4,096	501	11,280
1981	183	4,271	523	11,782
1982	190	4,454	544	12,305
1983	198	4,644	567	12,849
1984	207	4,842	592	13,416
1985	179	5,049	512	14,008
1986	185	5,228	531	14,520
1987	192	5,413	550	15,051
1988	199	5,605	569	15,601
1989	205	5,804	588	16,170
1990	189	6,009	542	16,758
1991	194	6,198	557	17,300
1992	--	6,392	--	17,857
TOTALS	2,296	6,392	6,577	17,857

Table 7 estimates growth for the Town, Planning Area and total area and suggests that the total area will grow by some 2,296 units in the 1980 - 1992 period while the population will increase by some 6,580 people to a total of 6,392 units and 17,860 people overall.

TABLE 7
POPULATION AND HOUSEHOLD GROWTH
1980 - 1982

<u>Date</u>	<u>Town of Leesburg</u>		<u>Planning Area</u>		<u>Total Area</u>	
	<u>Pop.</u>	<u>Housing Units</u>	<u>Pop.</u>	<u>Housing Units</u>	<u>Pop.</u>	<u>Housing Units</u>
1980, April 1	8,360	3,214	2,290	883	11,280	4,096
1992, Jan. 1	11,660	4,399	6,200	1,993	17,860	6,392
1980-1992	3,300	1,185	3,280	1,110	6,580	2,296

Goals in the Resource Management Plan and the area specific goals (page 19) suggest that this growth should be encouraged to locate in or immediately around the Town of Leesburg as part of the growth management philosophy embodied in the RMP. These residential goals and the proposed strategies to realize them will be outlined in this plan.

RESIDENTIAL DEVELOPMENT PATTERN

A basic tenet of the Resource Management Plan is that new residential development will be concentrated in and around existing community development areas. The area around the Town of Leesburg is defined as a primary growth area to accommodate residential growth because of the existing public facilities. More facilities will be required as development continues; costs of this new growth should be borne by the new growth itself.

Expansion areas for residential growth are clearly defined in Figure 1, page iv which portrays the growth scheme for the entire planning area.

The limits of urban growth will be established by an Urban Limit Line. (See Figure 1, page iv). The Urban Limit Line (ULL) is the geographical boundary that clearly distinguishes the more urban oriented (Town of Leesburg and its immediate environs) areas from the rurally based (farm) community. Basic to the Resource Management Plan is the tenet that new development would locate around the more urban areas where public facilities are available at the least public cost. The concept of the Urban Limit Line represents a specific implementation technique designed to promote residential and non-residential growth around designated urban growth centers (towns, villages).

Generally, the proposed residential densities for the planning area are as follows:

TABLE 8

DESCRIPTION OF GROWTH MANAGEMENT AREAS

<u>Area</u>	<u>General Description</u>
Urban Area (Town of Leesburg)	Urban density, infill development of similar density.
Urban Growth Area (Urban Limit Line Area)	Planned residential zones with varying unit types ranging from 1.5 to 8 units per net acre for medium residential density.
Rural Residential Area (Rural Fringe)	Residential development mixed with farming uses. Single-family development based on low density, rural residential development.
Agricultural/Rural Area	Very rural development with farming as land use base. Residential uses should complement farming land uses.

A. Urban Growth Area:

The Urban Growth Area is designed to accommodate varying residential unit types from single-family detached and duplexes to townhouses and multi-family housing on a planned unit development basis (PD zones). The PD zones will be allowed only if significant public facilities are proffered and creative cluster design criteria are employed.

The PD zones will allow varying unit types and higher densities than an ordinary subdivision. Given the projected growth rates and the magnitude of vacant developable land within the Urban Growth Area and the Town of Leesburg, totalling some 3,000 acres, there is considerably more than 30 years of development potential for residential land within the the Urban Limit Line. Table 9 summarizes land use policies and implementation recommendations within the Urban Growth Area.

TABLE 9
SUMMARY OF RESIDENTIAL POLICIES AND RECOMMENDATIONS
WITHIN THE URBAN GROWTH AREA
Land Use Policies

1. Encouragement of variety of housing types.
2. Clustered development with open space criteria.
3. Self sufficiency in public facilities and utilities.
4. Density range based on existing support facilities; increased density (PD) based on additional supporting facilities.
5. Increased density in return for conservation easement donations.
6. Preservation of historic sites through rezoning, if necessary.
7. Allowance of moderate amount of commercial and office development.
8. Promotion of pedestrian circulation to activity centers.
9. Provision of active and passive recreation.
10. Encouragement of provision of open space as a green belt transition to the Rural Fringe. (See Figure 15, page 86)

Implementation Recommendations

1. Proffer Ordinance.
2. Open space within subdivisions.
3. Phasing Plan.
4. Donation of conservation easements.
5. CIP focus in this area.
6. Cluster Ordinance to promote clustering for open space in more urban areas.
7. Receiving zone for proffered easements.
8. Encouragement of mixed uses of residential and non-residential functions in community center areas to provide neighborhood identity.

B. Rural Fringe:

Just beyond the Urban Growth Area is the Rural Fringe area of farms, estates and single-family development without central sewer. The traditional farming industry would be preserved in this area. No increased density is recommended unless strict rural clustering criteria can be designed into the project. (See Figure 13, page 74 for an example.) This area could accommodate preservation easement proffers if a farmer and ULL landowner mutually agreed to such an arrangement. Table 10 summarizes land use policies and implementation recommendations within the Rural Fringe area.

TABLE 10

SUMMARY OF RESIDENTIAL POLICIES AND RECOMMENDATIONS

WITHIN THE RURAL FRINGE AREA

Land Use Policies

1. Preservation of open space and agriculture.
2. Promotion of harmonious mix of residential and agricultural land uses.
3. Preservation of rural character.
4. No sewer extensions into rural watersheds. Ultimately the Town of Leesburg will be the exclusive provider to the Cattail Branch Service Area.
5. Preservation of historic sites.

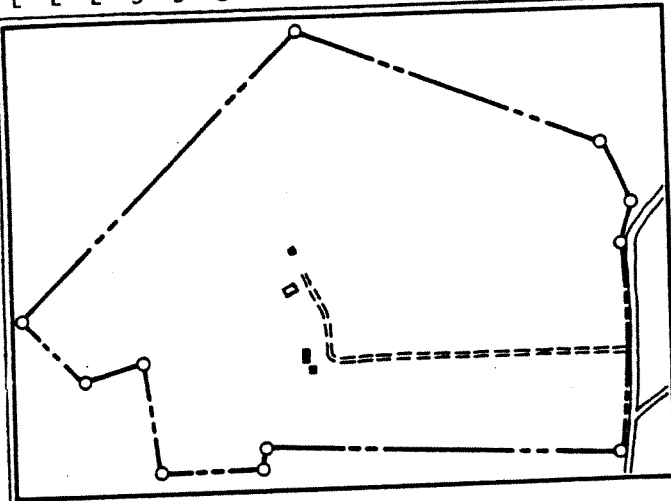
Implementation Recommendations

1. No rezoning to higher categories.
2. Rural subdivision clustering encouraged to protect farm uses.
3. Detailed design and location criteria should be established for clustered rural subdivisions.
4. Establishment of a green belt of large institutional, recreational and other open space uses in the vicinity of the Urban Limit Line.

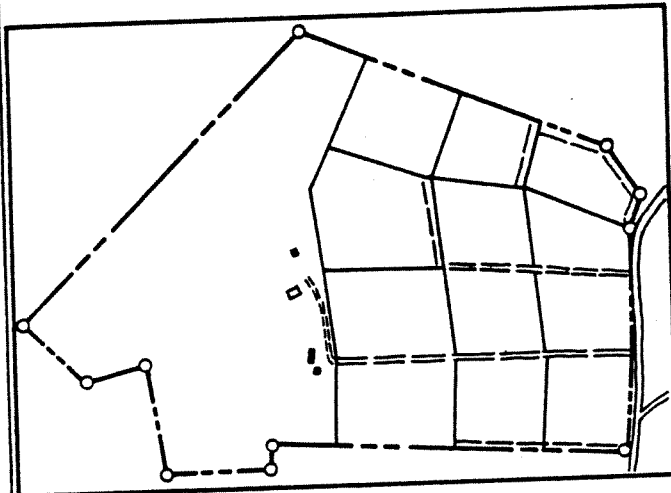
FIGURE 13

L E E S B U R G A R E A M A N A G E M E N T P L A N

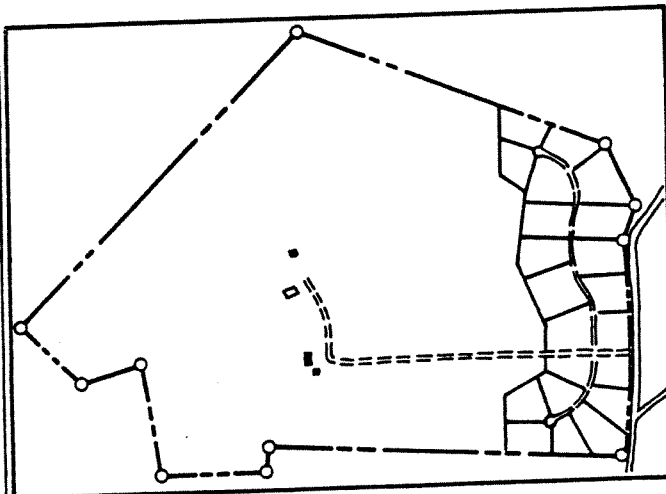
RURAL
DEVELOPMENT
PATTERN



EXISTING FARM
(226 acres)



TYPICAL 10 ACRE SUBDIVISION
13 LOTS



RURAL CLUSTER SUBDIVISION
22 LOTS (1-2 acres/lot)
190 acres remains in farm use



No Scale

L E E S B U R G A R E A M A N A G E M E N T P L A N

C. Agricultural/Rural Area:

The Agricultural/Rural Area is defined as the prime preservation area due to environmental aspects, farming and the historic character of the area. This area will serve as a sending zone for residential development rights. Residential development would be limited to large lot, estate type development. Agricultural activities would remain the basic land use. Table 11 summarizes land use policies and implementation recommendations in the Agricultural/Rural areas.

TABLE 11

SUMMARY OF RESIDENTIAL POLICIES AND RECOMMENDATIONS

WITHIN THE AGRICULTURAL/RURAL AREA

Land Use Policies

1. Promote economic return on farming activity.
2. Maintain or increase farming activity.
3. Encourage formation of Agricultural Districts.
4. Allow no sewer extensions.
5. Limit location of CIP items that are inconsistent with agriculture.
6. Discourage residential development on prime agricultural soils.
7. Nuisance laws should protect farming activities.
8. Encourage preservation easement proffers in this district.
9. Encourage easement purchase or donation.
10. Preserve historic sites.

TABLE 11 (cont'd.)

SUMMARY OF RESIDENTIAL POLICIES AND RECOMMENDATIONS

WITHIN THE AGRICULTURAL/RURAL AREA

Implementation Recommendations

1. Consideration of conservation and preservation programs to be identified in Rural Plan.
2. Donation of conservation easements.
3. Detailed design and location criteria should be established for clustered rural subdivisions.
4. Where residential development occurs, it should be on larger lots than are allowed by the current A-3 zoning category.
5. Establishment of the area as a sending zone for proffered easements.

In the Rural Fringe and Agricultural/Rural areas a major assumption is that residential development limits the viability of the farming enterprises. Pages 77 through 79 of this Residential Plan analyze the concept of Density Transfer and its significance to the Leesburg Area Management Plan. The intent of this program is to strengthen the viability and economic basis of farming in the rural areas while furthering other objectives of concentrated growth and cost effective public service provision.

D. Density Transfer Concept and Procedure:

The County may give density in the upper range established in this plan to developers proffering certain public facilities and/or amenities. Such proffers are voluntary on the part of the developer, and the amount of additional density granted by the County is discretionary on the part of the County.

Additional density could be granted to a site within the ULL if the developer conveys land for public purposes such as school sites, library sites, open space, etc.

Higher density could also be granted in return for the proffering of "off-site" open space for the public purposes of historic and/or agricultural preservation. If a developer elected to voluntarily acquire a conservation easement on a parcel of land outside the ULL but within the Planning Area which meets the County's criteria for being historically or agriculturally important as designated in this Plan, and to convey that proffer of easement to the County, the County could in turn grant a higher density for the developer's land which lies within the ULL. Such an "off-site proffer" would, in effect, be a proffer of an open-space resource outside the ULL to the County in order to compensate the public for reducing the existing open space resources on the development site within the ULL. The level of density granted would be directly proportional to the quality and quantity of the donated conservation easement. Such a proffer of a conservation easement and the resultant higher density could be considered a "Density Transfer" from a site which the County has designated as a priority for conservation to a site which the County has designated as a priority for development. The developer would not be required to hold fee simple title to the site outside the ULL.

General Policies and Criteria for Density Transfer Sites:

A. Planning Districts (in order of priority):

1. Oatlands
2. White's Ferry
3. Sycolin
4. Catoctin

B. Kinds of Areas/Sites/Land Resources (in order of priority):

1. Agricultural land:

- a. The land must be located in the Oatlands, White's Ferry, Sycolin or Catoctin Districts.
- b. Priority will be given to land which is in imminent danger of being developed, or which is outside but adjacent to the ULL, or which is in an area of active farms.

2. Historic and Scenic Properties:

The land must have at least one of the following attributes:

- a. Be listed on the VHLC inventory.
- b. Be listed on the State and/or National Register of Historic Places.
- c. Be otherwise shown to have important local, state or national historical significance in and of itself, or to substantially contribute to the preservation and enhancement of such a property.
- d. Be shown to be a significant component of an important and valuable scenic vista or viewshed.

C. General Criteria, Guidelines and Procedures for Density Transfers:

1. The transfer conservation site must be determined or be designated by the County (by an area plan or other action) to have significant public purpose value for agricultural, historic, environmental or vista preservation based upon its location, quality, size, configuration, character or potential use.
2. Density transfer credit will be granted at a rate equal to the existing zoning density of the conservation site, i.e., one unit per three acres on A-3 land. Only land outside the ULL will be eligible for transfer development credit. The density credit will then be transferred to the development site upon recordation of a proper preservation easement and upon approval by the County.
3. Land on the transfer (conservation) site which is in the 100 year floodplain or which consists of slopes equal to or greater than 25 percent is not eligible for any density transfer credit.
4. The transfer site shall have a minimum land area size of 50 acres per individual parcel. Significant historic properties will not have a minimum size.
5. The transfer program will only apply to rezonings to one of the "PD" classifications.

6. A fifty-acre gross development density will be allowed on the preserved land after easement is established. The easement shall be written so as to be in perpetuity.
 7. The establishment of a conservation easement in return for the granting of increased density on a development site would be the "last proffer" in the rezoning negotiation process. The County will set a limit on the total units that may be transferred to a particular development site by the preservation easement proffer procedure, in accordance with the Comprehensive Plan.
 8. All property transactions and recordations of easements shall be carried out by and between the owner or agent of the development site and the owner or agent of the conservation transfer property in conjunction with an easement receiving institution such as the Virginia Outdoors Foundation.
 9. The County must approve any and all terms and conditions of the preservation easement proffer before approving the density transfer.*
- D. Specific sites (Examples, not complete list and not in order of priority):
1. Properties adjacent to: Oatlands, Rokeby, Morven Park, Balls Bluff Cemetery, battlefield and entrance road, Woodburn
 2. Balls Bluff Battlefield
 3. Raspberry Plain Farm (White's Ferry District)
 4. Rockland Farm (White's Ferry District)
 5. Big Spring Farm (White's Ferry District)

* A model easement deed will be written and offered by the County for the use of landowners involved in this procedure.

COMMUNITY DESIGN

Introduction:

Community design is a term which refers to the character of the physical structure and organization of a community and which includes habitable structures, transportation elements, open space areas and the complex network of relationships between these diverse elements. The primary focus and concern of the community design process is to allow new development to be organized in such a way as to enhance community identity, promote energy conservation and to preserve the existing natural amenities as described in the Resource Management Plan and to achieve recommended Residential Goal E of the Goals section of this plan (page 20).

The pattern for new growth in the Leesburg area should follow the traditional pattern that has occurred here during the past two centuries of small clusters of urban centers grouped around a central community function such as a commerce center (shopping/offices) or governmental center (school/offices).

Community Design Elements and Guidelines:

Communities are composed of numerous elements, some of which are immediately recognizable such as roads, schools or shops and some of which are perceptible only indirectly through their effects such as community garden clubs, fraternal organizations, county sewer service programs and others. Inadequate or misplaced provision of the necessary space for these elements will severely affect the quality of life of community residents. Consequently, Loudoun County has a vital interest both in the provision and in the location of important community elements which include:

1. Community Centers:

The community centers should be the focus of residential neighborhood activity and could include such governmental functions as schools, parks and libraries and commercial services such as professional offices and shopping for daily household needs, surrounded by a transitional zone of compact residential development. Community centers should also be the focus for non-governmental community activities such as fraternal and social clubs, theater groups or churches and space should be set aside for the eventual inclusion of these groups as they develop when the community is constructed. Community centers should be at the local transportation hubs of new communities and should be readily accessible to pedestrian traffic.

There are inherent differences in land use intensity between various functions within the community center and between the community center, its compact higher density residential area and the surrounding lower density residential areas. Therefore, open space, buffering and deliberate phasing down of land usage intensities should be employed in layout design.

2. Parks and Environmental Areas:

Parks should be linked closely with both the pedestrian/bicycle circulation and the recreational trail system, forming a logical network within the Leesburg area as a whole. They may include both level, well drained areas developed for active recreation such as basketball, tennis and soccer and environmental areas such as woodlands and stream valleys for passive recreation. The Parks and Recreation component of the Community Facility Plan, page 120 identifies the graduated types of parks to be located in the Leesburg area. Neighborhood parks of about five acres in size should be closely associated with residential clusters of some 160 - 200 dwellings and should contain facilities for small children, multi-purpose courts and an open field for organized games. A community park of 20 acres might be provided by a larger planned community development of 1,300 - 1,500 dwellings and should contain areas for tennis, softball and swimming as well.

3. Schools:

Schools should be the major focus of neighborhoods and are a point of synthesis among governmental, educational and recreational functions. Safe pedestrian access is essential and is of special interest to the County since its alternative, busing, is very expensive and energy inefficient. Consequently, elementary schools should be located within one mile of the most remote residence as measured along a safe, all-weather path system. Middle and high schools should be within one and one-half miles of the most remote dwelling. Elementary school sites in the Leesburg area should be 15 acres in size and should be both level and well drained. Middle school sites should be 30 acres in size and again both level and well drained. High school sites should have similar characteristics but should be 35 acres in size. Proximity between middle and high school sites has advantages in terms of extracurricular athletics and community events and the cost of maintenance personnel. Given the inevitable traffic associated with these facilities, middle and high schools should have safe access to collector roads.

4. Pedestrian Circulation:

The pedestrian and bicycle circulation system should link residential areas with community centers, schools and the shopping area in a systematic and safe manner through logical design and the use of grade separated sidewalks and bridge/underpasses when associated with vehicular routes and collector roads. The system would be distinguished from recreational trail systems which are also encouraged but which cannot be assured of year round use due to ice, flooding or other intermittent hazards. However, though distinct in purpose, these two systems should be integrated with one another and with such regional trail systems as the Northern Virginia Park Authority's W&OD Trail.

5. Vehicular Transportation:

The physical and visual dominance of the automobile should be reduced whenever possible. Clustering of housing units, road calibration in terms of ultimate traffic loads, off-street parking, a comprehensive pedestrian path system and close association of residential, commercial, educational and recreational functions would all contribute to reducing automobile dependence and road requirements. Curved streets and divided collector roads would contribute to reducing the visual impact of those roads required by development. Provision should be made in the community center for park-and-ride lots for van and car pooling.

6. Energy Conservation:

The County will encourage energy conservation in new buildings and subdivisions. Energy conscious plans should include the following elements:

- a. Road and lot layout to maximize solar access in winter
- b. Appropriate building orientation for solar gain in winter
- c. Vegetative planting to reduce summer solar gain
- d. Use of topography and vegetation to protect buildings from winter winds and conversely enhance the effect of cooling summer breezes

7. Variety of Residential Types:

The Resource Management Plan and this plan have established goals to "encourage at appropriate locations an affordable variety of housing types commensurate with demands created by current needs and future growth" (RMP, page 195). This goal finds justification in the need to shelter the many different income and social groups in Loudoun County.

The density ranges in Figure 14, page 84 , combined with the criteria identified in Tables 13 through 16 illustrate overall residential development strategy within the Urban Limit Line. Higher density, traditional rental and/or condominium apartments, patio units or townhouses, will be located around the community focus areas in the upper Tuscarora and Edwards' Ferry Planning Districts. Tracts of land at a greater distance from these focal areas and near the edge of the Urban Growth Area will be developed in lower density, single-family detached housing types.

The large tracts of open land surrounding the Town, including the recently annexed Carrvale tract, are likely to be developed for the conventional middle income housing markets by major developers and builders. The County would encourage that these large tracts of land be designed as planned communities with a mixture of housing types, integrated in a harmonious way with the environment, community facilities, roads and with contiguous properties. Conversely, the generally smaller tracts of undeveloped land within the Town of Leesburg are likely to be developed by smaller building companies and developers for specialized markets such as the elderly or the historically oriented affluent. The County anticipates that the Town would refer such development to the County on a case by case basis in applications such as housing for elderly where co-operation would be beneficial or in circumstances where the tract is adjacent to the Town/County boundary.

RESIDENTIAL DENSITY

The designation of an appropriate residential density for each parcel of land within a particular planning district may be resolved by taking into consideration factors such as proximity to public facilities like necessary roads, community parks and schools, environmental conditions such as steep slopes, soil suitability and floodplains, adjacent uses and zoning and the preservation or contribution toward preservation of important community resources such as farmland, significant open space or historic sites. Furthermore, developers of new communities and subdivisions must take into account facilities already in place or planned by the County when working out their designs. Densities in the upper range shown on Figure 14, page 84 cannot be assigned in the absence of a full set of existing or already scheduled emplacement of supporting utilities and facilities and a detailed acre by acre environmental review. Overlaying these detailed site considerations are two major density ranges generated by the Urban Limit Line, urban densities within the ULL and rural densities outside the ULL. Within the ULL the County intends to oversee the development of an urban community with a full provision of public facilities needed to support and complement the new population. Loudoun County will, accordingly, encourage the design of community proposals which are focused on planned community centers incorporating commercial, office, employment and community recreational functions. Residential areas surrounding these core functions would be designed for higher density residential building types such as townhouses

RESIDENTIAL DENSITY* RANGES within the URBAN LIMIT LINE

*NOTE: GROSS DENSITY

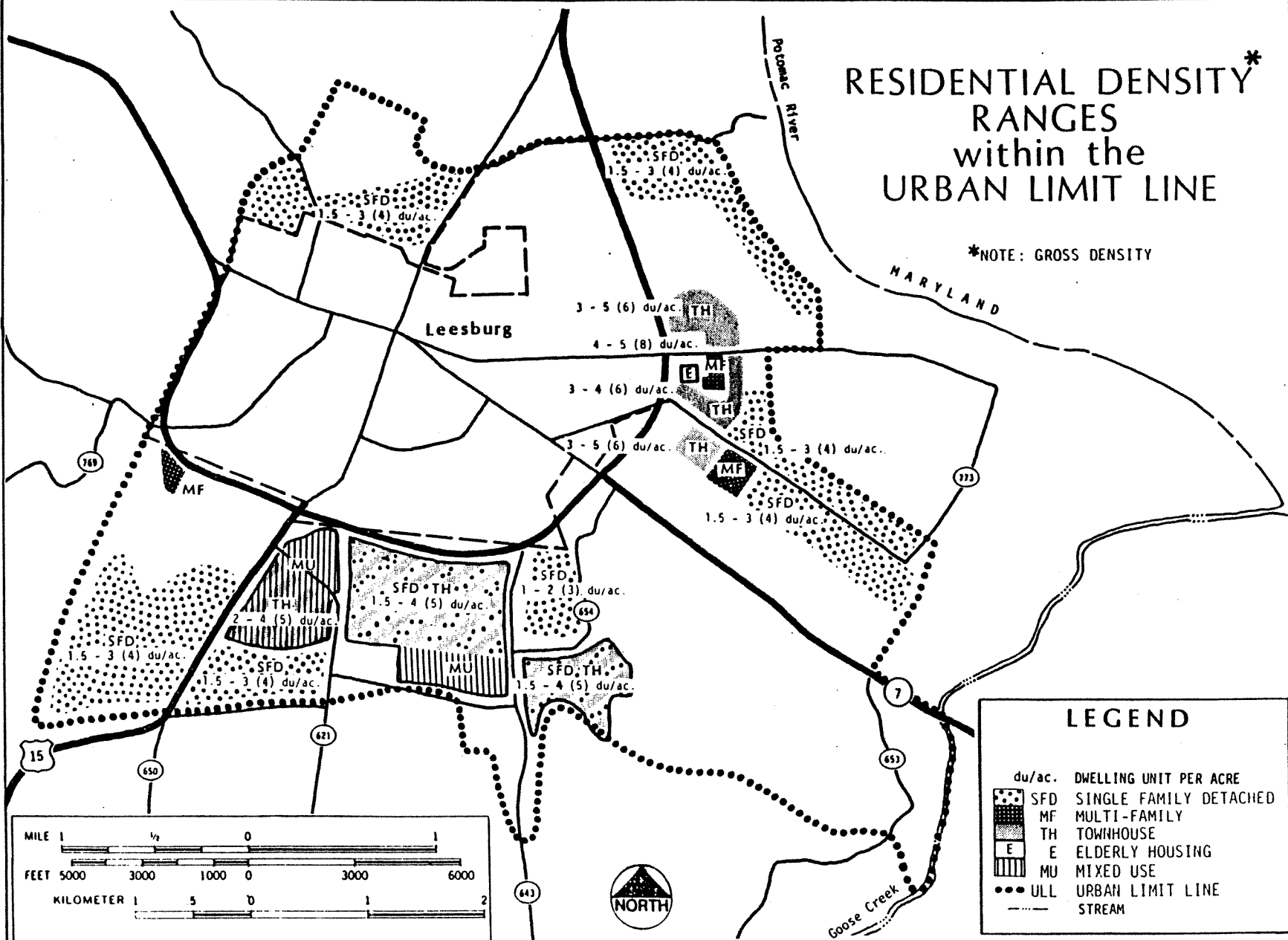


FIGURE 14

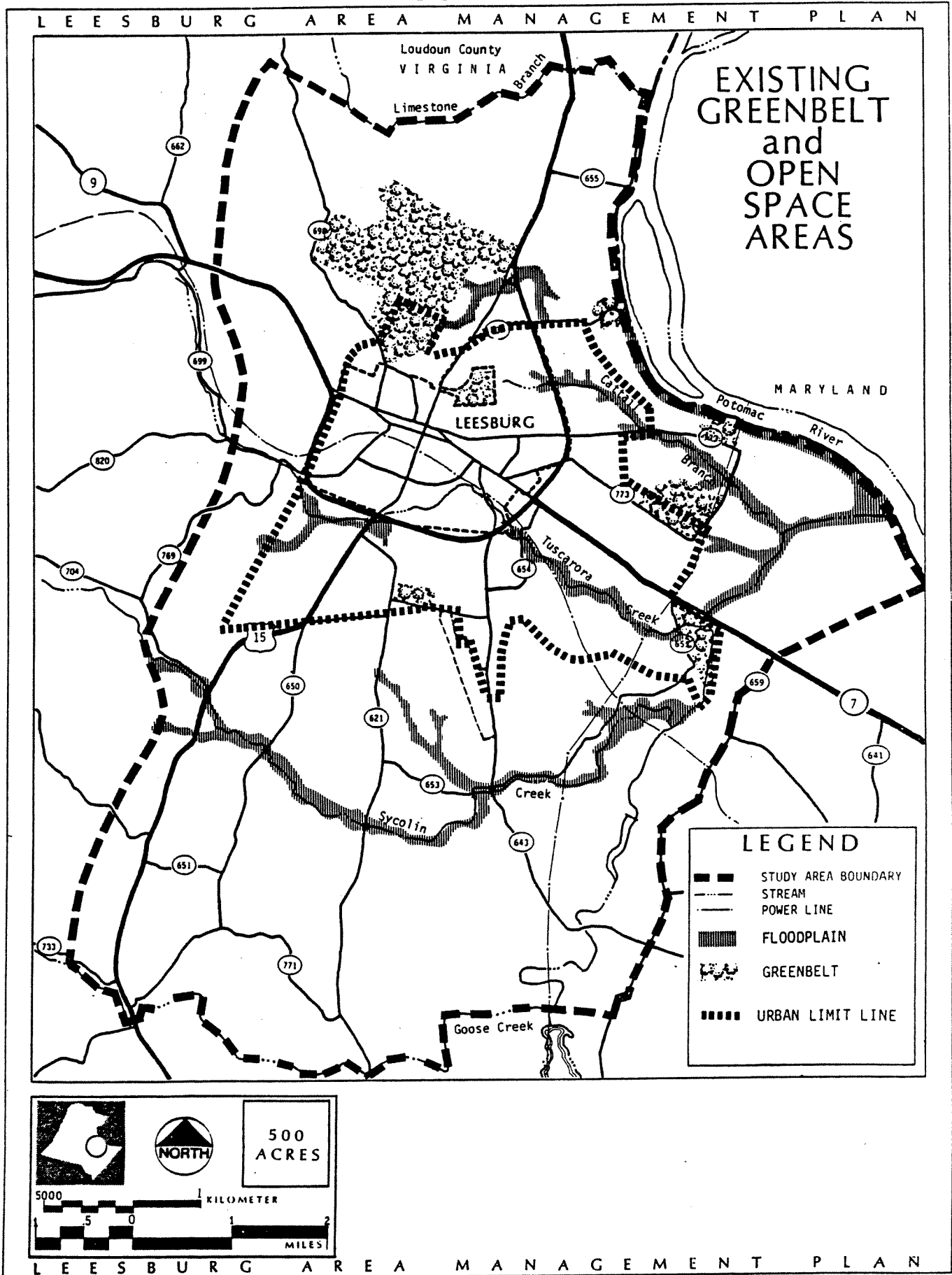
and garden apartments. Residential area at a greater distance from the community core, though still within the ULL, would be designed for single-family detached dwellings.

Outside the Urban Growth Area, the intent is to encourage agricultural uses but permit low density rural residential development. While the density range within the ULL is inherently higher than that beyond the ULL, the County intends to soften the contrast by the location of open space greenbelts and institutional uses such as office facilities or parks along the periphery. (See Figure 15, page 86) There are various density implications of these public facility, environmental, land use, timing, public resources and Urban Limit Line factors which are discussed in the following housing options section.

Figure 14, page 86 designates the density ranges for land within the Urban Limit Line. The ranges represent general directions for development within the ULL and should not be taken as specific parameters or standards for development. Figure 14 will be reviewed along with the following detailed site criteria factors. The bracketed figures in the density ranges are intended for the implementation of the density transfer procedure. See page 77 for details.

1. Detailed site analysis of environmental conditions.
2. Proximity to existing and/or planned and funded community facilities, commercial and employment uses in the planning area and within the Town of Leesburg.
3. Appropriate density and development types of residential uses in the surrounding area including tracts within the Town of Leesburg.
4. Compatibility with existing and adjacent zoning and the Area Plan.
5. Sufficient vehicle trip capacity of existing roads, intersections and interchanges affected by the proposed development.
6. Proximity to existing or planned bicycle and pedestrian paths to local shopping, community centers and schools.
7. Central sewer and water availability in designated watersheds.
8. Provision of natural open spaces, parks and/or vegetation buffers between differing land uses.
9. Conservation of environmental, historic and agricultural land resources.

FIGURE 15



A more detailed explanation of the County's review procedure is outlined in the appendix, page 98 of this Residential Plan. The object of this review is to achieve the goal of a true community, possessing a functional complement of institutional, recreational and transportation facilities and utilities, sited so as to lessen environmental impacts such as stormwater runoff and erosion and designed to conserve and make the best use of whatever unique environmental and historical assets the site may have such as stream valleys, woodlands and historic sites and structures. The density ranges shown in Figure 14 indicate a basic minimum/maximum range and a bracketed maximum. In order to achieve the bracketed maximum (if desired), additional conservation easements must be proffered, sufficient to generate an additional one unit per acre density increment.

Table 12 summarizes the range of dwelling unit totals which the County anticipates will develop within the Town of Leesburg and the Urban Growth Area.

TABLE 12

EXISTING AND POTENTIAL HOUSING UNITS IN THE URBAN GROWTH AREA
(Within the ULL and the Town of Leesburg)

Existing Residential Units:	Town of Leesburg	3,210 Units
Existing Residential Units:	Immediately Outside the Town	480 Units
Potential Development:	Upper Tuscarora and portions of White's Ferry	2,700 - 4,860 Units
Potential Development:	Edwards' Ferry and portions of Lower Tuscarora	2,120 - 3,570 Units
Potential Development:	Town of Leesburg*	2,840 - 6,390 Units

* Based on vacant acreages and proposed development density in the Town's February 1982 draft Plan, page 89.

TABLE 12 (cont'd.)

TOTALS

Total Existing Housing in and Immediately Surrounding the Town of Leesburg:	3,690 Units
Total Potential New Housing in and Immediately Surrounding the Town of Leesburg:	7,660 - 14,820 Units
Holding Capacity Within the ULL	11,350 - 18,510 Units

Table 12 indicates that the Town of Leesburg and its immediate vicinity have a holding capacity of some 11,350 - 18,510 dwelling units which could accommodate a population of 32,500 - 53,000 people. The 7,600 - 14,820 potential new units which could be located both within and immediately adjacent to the Town would provide many housing options for the 2,296 households anticipated to locate in the area during the next ten years.

Multi-family Housing:

In the past four years, the Leesburg area has grown by approximately 522 non-subsidized units: 341 single-family, 177 townhouses and four apartments. This is a percentage ratio of 65%, 34% and 1%. The figures for non-subsidized apartments is very low, but was compensated by the building of 100 HUD assisted Section 8 units for the elderly. This virtual absence of private multi-family development in Leesburg mirrors the experience of the Washington, D.C. area as a whole since multi-family housing "slipped from a healthy 41% of all units in 1971 to 16% in 1979" and "moreover, virtually all recent multi-family construction has been government financed at below market rates."*

Presently, the high interest rates and tax offsets are discouraging the creation of new apartment developments, but the need for such units will eventually have to be satisfied.

The following are criteria for the location of multi-family development within the Urban Limit Line:

1. Detailed site analysis of environmental conditions.
2. Proximity to community facilities, commercial and employment uses in the planning area and within the Town of Leesburg.

* Schussheim, Morton J., Rental Housing in the Washington Area. Greater Washington Research Center, Washington, D.C., April, 1980, pages 2 and 3.

3. Appropriate density and development types of residential uses in the surrounding area including tracts within the Town of Leesburg.
4. Compatibility with existing and adjacent zoning and with area plan density ranges.
5. Sufficient vehicle trip capacity of existing roads, intersections and interchanges impacted by the proposed development.
6. Proximity to existing or planned bicycle and pedestrian paths to local shopping, community centers and schools.
7. Central sewer and water availability in designated watersheds.
8. Provision of natural open spaces, parks and/or vegetative buffers between differing land uses.

County strategy would be to permit multi-family and higher density development on those specific properties with development plans which would incorporate these criteria as well as the Zoning Ordinance specifications. For this reason, this plan will not designate specific new tracts of land for townhouse, apartment or major single-family detached uses.

RECOMMENDATIONS BY PLANNING DISTRICT

Following the general recommendations for each planning district, environmental constraints and development opportunities for specific large properties are noted.

1. White's Ferry

a. North of the Urban Limit Line:

No zoning changes to the existing agricultural/residential A-3 zoning district beyond the Urban Limit Line are proposed. The District would act as a transitional area with Morven Park, Springwood and large lot rural residences forming a buffer between the urbanized core of the area and the farms to the north such as Rockland, Big Spring and Raspberry Plain.

b. Within the Urban Limit Line:

Within the Urban Limit Line, residential/institutional development is recommended. These types of uses should complement the residential and medical character of existing facilities. While residential development of 1 - 3 units per acre would be

acceptable within the Urban Growth Area, the County would prefer the area to develop with institutional uses and thus continue a pattern established by the Loudoun Memorial Hospital, the Heritage Hall Nursing Home, the Loudoun Country Day School, Morven Park, the Morven Park Equestrian Institute and the Marion Dupont Scott Equine Medical Center.

2. Catoctin Ridge

No alteration to the existing agricultural/rural residential A-3 zoning is proposed. The District has particular environmental features: steep slopes, rapid stream flow, hardwood trees which indicate that any development should proceed with particular care. The advantages of innovative rural clustering of residential units on the small plateaus in this district should be particularly considered. The proposal to develop a part of the Catoctin Ridge Planning District which formed a component of the Hoffman rezoning (ZMAP #288) runs counter to the policy of protecting important environmental features. Residential density transfer from the ridge to the flat areas will be encouraged to protect the environmental integrity of the ridge.

3. Town of Leesburg

The Town of Leesburg is not within Loudoun County's land use jurisdiction but it is a factor in planning area residential location decisions and those decisions within the Town will affect the type, scale, density and location of housing surrounding the Town. There is potential accommodation for about 2,840 - 6,390 residential units within the Town, mostly as infill between existing development. A wide variety of single-family attached and detached and multi-family options appears to be most suitable, particularly for somewhat specialized markets such as the historically oriented purchaser the elderly or the custom built home market. There should be compatible land uses in White's Ferry, Edwards' Ferry, Upper Tuscarora and the Town of Leesburg where the Town and the districts are adjacent and relate to each other.

4. Edwards' Ferry

Except for that portion of Potomac Park which was the subject of ZMAP 85-13 approved in 1985 and which lies west of the Goose Creek within the LAMP planning area, the properties outside the ULL are not recommended for sewer service within the time frame of this plan except properties which are already served by central water and sewer. Ultimately, the Town of Leesburg will be the exclusive provider of sewer and water to the Cattail Branch Service Area west of Goose Creek.

Environmental features which include steep slopes, floodplains, streams, historic features such as the Balls Bluff Cemetery and battlefield and older houses, adjacent commercial/employment uses and major roads will require careful design and buffering to ensure proper development of the Edwards' Ferry District. Given the need for many public utility systems and the absence of public facilities, and given the high degree of environmental, historical and land use sensitivity required for development, Loudoun County considers that the area would be best developed as a co-operating, interlocking set of planned community zones. In addition, development of this area should complement those uses presently located within the Town of Leesburg.

The major tracts of land to the east of Leesburg which are presently zoned C-1 would best be developed as an integrated planned community core with a mix of commercial, office employment, institutional and community facilities which would be surrounded by a compatible mix of townhouse and garden apartment developments. Required by these land uses is a full complement of public facilities and utilities. County approval of specific new zoning categories and districts will depend upon the character of particular development proposals. However, a range of 10 - 20 acres of neighborhood commercial, 20 - 30 acres of office employment functions and five acres of recreational and open space facilities might be appropriate. The balance of the acreage could be devoted to residential land uses. Developments similar to Hunters Woods in Reston, Virginia which comprises shopping options, a public library, a community recreational facility, professional offices, apartments for the elderly, garden apartment condominiums and townhouses could serve as an example. Given the magnitude of such development, major roadway improvements would be required on Route 7 and on the secondary roads that intersect Route 7. The residential properties north of Edwards' Ferry Road should not have direct access onto Route 15, but access should be through a new major collector road parallel to Route 15 that terminates in Route 773. Dedication for an interchange at Edwards' Ferry Road and the realignment of Fort Evans Road would be required at the onset of new development. Other traffic improvements are specified in the Transportation section of this plan.

Carr/Shrump:

The Carr and Shrump properties located between the California Road and Edwards' Ferry Road (both are Route 773) to Cattail Branch possess many environmentally critical and sensitive features: floodplains, small streams, some slopes of over 25% and some slopes in the 15% to 25% range, a number of acres with hardwood trees. The properties are adjacent to the Route 15 Bypass but will require major improvements to Route 773 and the proposed realigned Route 654 in order

to provide safe and effective vehicular access. These properties are designated to provide the community focus of residential development in the Edwards' Ferry and Lower Tuscarora Districts. Such residential development surrounding the community shopping and local office functions could include zero lot line patio, townhouse and garden apartment building types as well as apartments for the elderly with localized high net density characteristics. Stream valleys and steep slopes between these developments should be retained in a natural state. Residential densities should range from a single-family density of 1.5 - 3 units per acre along the edge of the Urban Growth Area to higher densities adjacent to the neighborhood commercial center. Multi-family development would be appropriate to serve the needs of special groups such as the elderly if highway capacity and other public utilities and facilities were available.

5. Upper Tuscarora

Residential development on central sewer and water is recommended for this planning district west of Route 654. To the east of the airport, densities should range from a low of one to two units per acre on the steep slopes along Route 654 to 1.5 - 4 units per acre for the areas that can be developed on flat land. Higher density attached and multi-family housing may be appropriate in some locations.

To the east of Route 15, the major tracts of land in this district should be developed as planned communities with a variety of housing types, single-family detached, patios and garden apartments with complementary community facilities such as schools, park sites, neighborhood shopping, roads and trails.

The Commercial section of this plan recommends that a moderately sized neighborhood shopping center should be located in this area, specifying appropriate ranges of size and compatibility with neighboring residential and non-residential functions.

A community focus area is planned in this sector of the Upper Tuscarora District, similar to that described for the Edwards' Ferry District. Townhouse and apartment development could also be integrated with the neighborhood center if appropriately buffered and served by roads and other facilities and utilities. This integration would lessen conflicts in land use and increase community benefits of convenience, land use harmony and housing type options. The area immediately below the northward flight path of Godfrey Field should be developed in a new non-residential land use which would be compatible both with the aircraft noise and with the surrounding residential uses. Proposed density ranges are from 1.5 - 3 units per acre for the outer

perimeter properties (Allman and Hoffman) to 1.5 - 4 units per acre for the remaining parcels. Higher densities up to five units per acre may be approved if additional proffers of conservation easements are made in conformance with the provisions indicated on pages 9 - 11.

Any development in the area bounded by Route 643 to the west, the Leesburg Bypass to the north and by Route 654 to the east and south should take place with an awareness of the steep slopes and native woodlands of the environment. The existing pattern of well sited and landscaped single-family houses on Route 654 is a suitable model for future development.

Development along the western boundary of the Upper Tuscarora District should address treatment of the Catoctin Ridge slopes with particular care given the composite environmental importance of steep slopes, woodlands, streams and floodplains. Concentration of dwelling units on the less delicate land with the balance of land dedicated to maintained and recreational open space would represent a preferred development pattern for the properties located to the south of Country Club Estates, to the east of the Catoctin District and to the west of Route 15. The Transportation Plan calls for improvements to Route 15 and an extension of a realigned Route 654 to cross the Allman tract which would limit the number of access points and intersections on Route 15 and provide better access to the Hoffman tract.

In terms of community facilities, these tracts provide several areas suitable for constructing an elementary school and a neighborhood park with some active recreational facilities like tennis and basketball courts and space for passive recreation. This would be particularly suitable along the streams and within the woodlands.

a. Allman/Hoffman:

The Hoffman tract's recent rezoning (ZMAP # 288) which proffered environmental, traffic and recreational features and cash trust funds in return for a density of 2.5 single-family detached units per acre, established a precedent for future development proposals on the Allman tract. The provision of other public facilities or the accomplishment of other public goals (such as farmland preservation through easement purchase) and development proposals to cluster residential units could permit gross densities of 1.5 to three units per acre. The Plan calls for single-family development in this part of the Urban Growth Area. No attached or multi-family development will be permitted. Additional easement proffers may be made to obtain a maximum of four units per acre.

b. Meadowbrook/Stowers:

These two properties located to the east of Route 15, to the south of the Leesburg Bypass and to the west of Route 643, contain small acreages of floodplain and are generally flat and well drained. On both properties sensitive and critical environmental areas are located on the northern edges, adjacent to the Route 15 Bypass. The properties do contain small acreages of woodland, also located mainly along the northern edges adjacent to the Bypass and on the eastern boundary of the Stowers property. These features should be preserved.

The Meadowbrook and Stowers properties are served by Routes 15, 621 and 643. The Transportation Plan calls for improvements to all of these roads. The realignment of Route 654 as a major collector road would cross these properties and provide for major east-west traffic movements.

Sewer and water lines presently cross the properties. The sewer line serves the J. Lupton Simpson Middle School and the water lines convey well water from the two Evergreen Mill Road wells northward to the Town of Leesburg. The properties are within the service radius of the middle school but would require the provision of additional elementary school sites to serve them. Ultimate development in the Urban Growth Area would generate the need for a high school. These properties, which are beyond the service radius of the existing Loudoun County High School in Leesburg, could provide such a high school site or the high school might be located on the playing fields of J. Lupton Simpson if replacement playing fields were acquired on the south side of existing Route 654. Such schools should be integrated with the residential neighborhoods by means of safe pedestrian paths. The paths on these properties should also link the residential neighborhoods with recreational areas which should incorporate both active and passive facilities. The environmentally critical and sensitive areas on these tracts may provide unique opportunities for community recreational facilities.

The Meadowbrook/Stowers properties are designated to provide the community focus of residential development in the Upper Tuscarora District. The focus area should combine educational, commercial and recreational functions and be surrounded by higher density residential development. A gross density of 1.5 - 4 units per acre with mixed use development should be considered the development range if fundamental transportation, environmental and community utility and facility factors are provided and up to five dwelling units per acre may be considered with conservation easement proffers. Net local densities could be higher in spots and development of attached and multi-family units could take place if other parts of the tracts are planned for a full range of community and recreational functions. A general density gradient should be designed into the properties

with the higher densities generally located along the Bypass and around the community center and lower densities located along the edge of the Urban Growth Area.

6. Lower Tuscarora

The Lower Tuscarora Planning District is mainly zoned for employment and industrial uses. Residential land uses are incompatible with such uses and are thus not recommended. The exception to this general strategy would be the area immediately south of California Road (Route 773) and north of Route 7 which would round out the Edwards' Ferry residential communities planned in the post 1992 period. As with the Edwards' Ferry District in general, the Lower Tuscarora District will require major investments in collector and other roads, sewer and water lines and in public facilities in order to sustain the residential and employment uses envisioned by the Area Plan. These facilities should be integrated with those of Edwards' Ferry just as the existing PDH-30 zoned property and the currently A-3 and R-1 and R-2 zoned properties could be developed at possibly higher density if integrated with the communities to the north.

As with Edwards' Ferry, the need for public facilities and utilities and the high degree of environmental and land use sensitivity required for harmonious development suggests that the District would be most suitably developed as an interlocking set of planned communities in the northern area and planned employment development along and to the south of Route 7. The boundaries between different land uses will require particular design care and buffering to protect the residential communities from adjacent higher intensity uses.

a. Holden

The Holden property which is located on the south side of Route 773 east of the Route 15 Bypass is presently zoned PDH-30. This generally level site has many acres of Class IV jack and some Class IV wet soil. The Transportation Plan incorporates improvements to Route 773 and proposes creation of new access from Route 7 to Route 773, in the form of a realigned and extended Route 654. Residential development on this tract could incorporate a mix of zero lot line patio dwellings, townhouses and garden apartments and development should incorporate buffers and setbacks from surrounding office development to the south and the community center to the north. This property should not develop until the major access problems are solved. Either Route 654 could service this property or Route 773 could be upgraded to handle the traffic demand.

b. Former Saunders Farm

The former Saunders Farm is located to the east of the Carr/Shrump and Holden properties and between the California Road (Route 773) and Route 7 within the ULL. The property has a gently sloping character and few trees. A distinct soil boundary crosses the old Saunders farm some 1,700 feet south of California Road and some 1,500 feet north of Route 7. Soils north of this boundary are Class I, II and III, while those south of the line are uniformly Class IV, jack and rocky.

The property can be sewered to the Town of Leesburg's plant by installation of sewer lines across the southern portion of the farm and under Route 7. There are presently no educational or other public facilities in this area. The Plan has identified the northern portion of this property as suitable for residential uses and as the boundary of that residential community which will focus towards the Carr/Shrump community center to the west.

While the northern portion of the Saunders Farm is generally suitable for residential development in terms of environmental factors, the property is severely deficient in terms of essential road, sewer and public facilities such as schools and neighborhood parks. A development density of 1.5 - 3 units per gross acre would be suitable if the necessary off-site road improvements to Route 773 and its connections to Route 654 extended, Route 15 and Route 7 were made and if other public facilities and conservation easement proffers were incorporated in the plan. A maximum four units per acre may be allowed if additional easements are proffered.

7. Airport

No residential land uses are proposed for this district because they are incompatible with such uses as aircraft takeoff and landing, petroleum storage and associated commercial/employment uses.

8. Goose Creek

This area is recommended to remain as it is at present with major consideration given to preserving the integrity of the water quality of the City of Fairfax water impoundment on Goose Creek. The District should be viewed as a long-term natural resource area and management strategies developed to preserve it.

9. Sycolin

No alteration to the existing agricultural/rural residential A-3 zoning is proposed. The District should be considered as a transition between the urbanized area around Leesburg and the more rural Oatlands District. Consequently, residential development of the area would be permitted. County policy regarding such major growth inducements as paved roads will be formulated with the goal of assisting rural functions and the maintenance of essential health and safety provisions.

10. Oatlands

No alteration of existing agricultural/rural residential A-3 zoning is proposed. Low density residential development (10 - 25 acres) is recommended throughout this district. Actual densities will be determined by soils, proximity to historic/agricultural sites, clustering design and compatibility with adjacent lot sizes. County policy regarding major growth inducements such as roads would be similar to that specified for the Sycolin Planning District. In addition, the County will explore such programs as donation of open space easements and a preservation easement proffer program to further stabilize the ongoing agricultural and historical functions of this area in the forthcoming Rural Plan.

APPENDIX

RESIDENTIAL DEVELOPMENT DENSITY DETERMINATION

This Plan recognizes that it cannot state a specific number of units or density for any particular parcel of land since much depends on detailed environmental qualities of soil and underlying rock formations or topography; location of the land in terms of proposed community and neighborhood centers or the proximity of a parcel to public utilities as well as the contribution of a development to the preservation of public resources and benefits such as prime farmland outside the Urban Growth Area. Tables 13 through 16 indicate the factors which the County will include in a review of a specific parcel in connection with a zoning map amendment petition. These factors vary in inherent importance one from another and may vary in relative importance from one parcel to the next. Thus proposed alteration of one environmentally critical factor such as the 100 year floodplain will always rank higher than a proposal to modify an intermittent stream. However, if the intermittent stream crossed land with 20% slope, with wet soil characteristics and covered in mature hardwoods, the environmental importance of this stream might approach that of the 100 year floodplain just mentioned. Again, while adequate transportation is always important, the significance of "closing" a projected collector road loop may increase the importance of the transportation factor in one rezoning more than in another.

Tables 13 through 16 would be used in connection with Figure 6, page 29 showing proposed development patterns within the Urban Growth Area and Figure 14, page 84 showing residential density ranges and housing types which the County anticipates will be proposed within the urban limit line. On reviewing these factors in the light of community development objectives and on receipt of Planning Commission recommendations, the Board of Supervisors will exercise its legislative judgment in determining an appropriate density and/or floor area ratio for a particular parcel of land in a rezoning. The County anticipates that a rezoning application demonstrating adequate satisfaction of environmental, utility, community facility and heritage criteria would warrant a rezoning density near the base of the County's density range. A rezoning petition demonstrating a creative and effective use of environmental factors (such as woodlands and streams for parks and recreational purposes), accompanied by proffers of land for community facilities (such as schools, firehouses or church sites) and showing not only the provision of essential utilities but proffering to assist the County in attaining other objectives (such as historic conservation or farmland preservation easements) would clearly meet the criteria for granting density approaching the higher levels of the density range in Figure 14.

TABLE 13

DENSITY/UNIT TYPE DETERMINATION FACTORS

I. ENVIRONMENTAL FACTORS

F-1 and F-3 100 Year Floodplain

EFFECT

F-1 and F-3 zoned land should be deleted from density calculations.

AFFECTED PARCELS

Portions of the Hoffman tract and Meadowbrook in the Upper Tuscarora District; portions of the International Pavilion, Carr and Shrumpp tracts in Edwards' Ferry District; portions of the O'Connor, Conrad and Riley tracts in the White's Ferry District.

F-2 100 Year Floodplain

EFFECT

Acreage can be used as open space credit in density calculation if land is proffered for appropriate landscaping and maintenance.

AFFECTED PARCELS

Wherever applicable

Small and Intermittent Streams

Natural Standing Water and Wetlands

Outside the 100 Year Floodplains

EFFECT

The County encourages recognition of these environmentally sensitive features in the earliest development

design stages with appropriate steps taken to maintain the existing functions of the natural systems. The acreage involved can be used in density calculations and can be developed if appropriate engineering practices are employed. The County would prefer these stream beds to remain open as stormwater management areas with residences transferred elsewhere on the tract of land.

The actual density transferred from such areas would be a function of other environmental, community facility and utility factors, proximity to proposed community focus areas as the ULL, community design and so on.

AFFECTED PARCELS

Such streams and wetlands exist throughout the ULL and all tracts tend to possess some acreage in this category. The Hoffman, Allman and Stowers tracts in the Upper Tuscarora District, the International Pavilion, Carr and Shrumpt tracts in Edwards' Ferry and land just east of the Leesburg Airport in the Lower Tuscarora Districts are major examples of this feature.

CLASS IV SOILS

EFFECT

Class IV soils share diverse characteristics antithetical to "customary" or standard development, e.g., shrink-swell soils require special road foundation techniques; consequently selection of suitable density would be a function of design/construction compatibility with the terrain, proximity to community facilities and utilities. The County encourages the recognition of Class IV soils at the earliest stages of design development in terms of dwelling unit type and road and utility construction. The density granted in a rezoning would reflect the County's judgment on the suitability of the design proposed.

An alternative method of development is as appropriately landscaped and maintained open space with density transferred elsewhere on the site.

AFFECTED PARCELS

The Hoffman and Allman tracts in the Upper Tuscarora District contain extensive areas of Class IV rocky, wet and jack soil. The Stowers tract also in Upper Tuscarora contains some wet and jack Class IV soil. Rocky Class IV soils characterize the steep slopes just east of Route 643 and south of the Route 15 Bypass. The International Pavilion, Carr and Shrump properties in the Edwards' Ferry District also contain some wet and jack Class IV soil.

Class I, II, III Soils

EFFECT

Class I, II and III soils are suitable for residential, commercial/employment and public facility uses. Such soils, if present on low slope terrain and in areas both designated for higher density uses and possessing a full complement of public facilities and utilities, could be developed with garden apartments, townhouses and patio houses. Flat, well-drained soils are also suitable for active recreational uses and for school sites and the County would permit the dwellings so pre-empted to be transferred elsewhere on the site.

AFFECTED PARCELS

The Meadowbrook and Stowers tracts in the Upper Tuscarora District contain many acres of such soils which are suitable for residential development of many types.

Mature Hardwoods - Mixed Woodlands

EFFECT

Woodland areas within the ULL are frequently associated with steep slopes, rock outcrops, streams and floodplains. Such areas would accordingly be included in density calculations only if they did not fall in the environmentally critical category. Otherwise, woodland areas would be used in residential density calculations. The County does encourage the recognition of such areas in the earliest design stages and would consider evidence of woodland preservation as an index of good community design.

AFFECTED PARCELS

Significant acreages of hardwoods exist on the Hoffman and Allman tracts and to a lesser extent on the Stowers tract in the Upper Tuscarora. The very rarity of such stands in the Upper Tuscarora area render these hardwood/mixed woodlands all the more valuable in terms of ultimate community development, and should be so recognized in the earliest design stages. Hardwoods are prevalent in the Tuscarora stream area just east of Route 643. In Edwards' Ferry, the Carr and Shrump properties north of Edwards' Ferry Road are extensively covered with hardwoods. The steep slopes on the east side of the International Pavilion property are also extensively covered with hardwoods.

Slopes Over 25%

EFFECT

Delete such acreage from density calculations.

AFFECTED PARCELS

Steep slopes constitute the major reason for drawing the ULL at the base of the Catoclin Ridge. Such slopes also define the eastern boundary of the ULL in the International Pavilion, Carr and Shrump properties.

Slopes of 15-25%

EFFECT

The County encourages recognition of these environmentally sensitive features in the earliest development design stages with clustered dwelling units, appropriate road layout, etc. The acreage involved can be used in density calculations and can be developed if appropriate engineering practices are employed. The County would prefer to see such slopes as landscaped and maintained open space with the residences transferred to elsewhere on the tract of land.

AFFECTED PARCELS

15-25% slopes exist throughout the ULL on many parcels of land. The Hoffman tract and various parcels of land just

east of Route 643 and south of the Route 15 Bypass in the Upper Tuscarora District and the International Pavilion, Carr and Shrump tracts in Edwards' Ferry contain noteworthy acreages with 15-25% slopes.

Slopes 0-15%

EFFECT

Slopes of 0-15% are suitable for residential, commercial/employment and public facility uses. Such slopes, if present on Class I, II, III soils and in areas both designated for higher density uses and possessing a full complement of public facilities and utilities, could be developed with garden apartments, townhouses and patio houses. Flat, well drained land is also suitable for active recreational uses and for school sites and the County would permit the dwellings so preempted to be transferred elsewhere on the site.

AFFECTED PARCELS

Portions of the Allman, Meadowbrook and Stowers properties in the Upper Tuscarora District and on the International Pavilion tract in the Edwards' Ferry District as well as the Holden tract in the Lower Tuscarora District possess such level to slightly sloping land.

TABLE 14

DENSITY/UNIT TYPE DETERMINATION FACTORS

II. UTILITY FACTORS

Collector and Arterial Roads

EFFECT

New development generates additional traffic, higher densities generating higher levels of traffic. Development proposals within the ULL should incorporate those transportation elements contained in the Area Plan. All development proposals will be evaluated in terms of projected traffic generation and the scale and traffic capacity of proposed collector and arterial roads serving the property both on and off the site. Allowance of higher residential density, within the ranges proposed in this plan, on a particular site will be a function of the transportation elements being in place, or already provided by other parties or by being proffered with land and/or funding assistance by the property developer involved.

AFFECTED PARCELS

The ULL possesses a minimum of collector and arterial roads. Major roads will be needed if the area is to develop significantly. The Transportation Plan calls for major improvements to existing roads and the re-alignment of Route 654 which affects the Hoffman, Allman, Meadowbrook and Stowers properties in the Upper Tuscarora District and the Holden, Carr, Shrum and International Pavilion properties north of Route 7 in the Lower Tuscarora and Edwards' Ferry Districts.

Sewer

EFFECT

Properties within the ULL are designated for sewer service.

AFFECTED PARCELS

Hoffman, Allman, Meadowbrook and Stowers in the Upper Tuscarora District and Holden, Shrump, Carr and International Pavilion properties in the Lower Tuscarora and Edwards' Ferry Districts would be served by central sewer.

Water

EFFECT

Properties within the ULL are designated for central water service.

AFFECTED PARCELS

Hoffman, Allman, Meadowbrook and Stowers in the Upper Tuscarora District and Holden, Shrump, Carr and International Pavilion properties in the Lower Tuscarora and Edwards' Ferry Districts would be served by central water.

TABLE 15

DENSITY/UNIT TYPE DETERMINATION FACTORS

III. COMMUNITY FACILITY FACTORS

Elementary, Middle and High Schools

Elementary Schools with sufficient school places should be located within one mile, Middle and High Schools one and one-half miles from the most remote dwelling measured along a continuous footpath system, open year round and safely segregated from vehicular traffic.

EFFECT

Elementary and secondary schools are major components of all communities and serve particularly important community functions in new developments because of the high student generation associated with new communities. Development proposals will be evaluated in terms of student generation by elementary and secondary school grades and in terms of necessary school sites and safe pedestrian paths leading to these sites. Allowance of higher residential density, within the ranges proposed in this plan, on a particular site will be a function of projected student generation and existing and/or planned and funded educational facilities within the walking ranges specified above.

AFFECTED PARCELS

The Allman, Hoffman and Stowers properties in the Upper Tuscarora District are within one and one-half miles of the J. Lupton Simpson Middle School. However, these properties lack proximity and access to elementary and high school sites. The International Pavilion, Carr and Shrum properties north of Edwards' Ferry Road are within one mile of Leesburg Elementary School but access is not easy due to the Route 15 Bypass. Furthermore, this elementary school is unlikely to possess the necessary school seats if the properties annexed in 1980 are developed at proposed densities. The Edwards' Ferry properties are also beyond the one and one-half mile walking distance of middle and high schools.

Neighborhood and Community Parks

Neighborhood parks and recreational facilities should be located one-half mile from the most remote dwelling, measured along a continuous footpath system so designed that they may be reached safely by children on foot.

Community parks and recreational facilities should be located one - two miles from the farthest dwelling, measured along a continuous footpath system which may cross major roadways if appropriate pedestrian safety measures can be included.

EFFECT

Recreational facilities are particularly important in new residential communities, given the high percentage of child population associated with these developments and the inevitable loss of vacant or "marginal" land as the Urban Growth Area fills up. Development proposals within the ULL will be evaluated in terms of the recreational needs of the proposed community as identified in this plan and in terms of those sites and facilities available and/or proffered. Allowance of higher residential density within the ranges proposed in this plan on a particular site will be a function of projected population and existing and/or planned and funded recreational facilities.

AFFECTED PARCELS

The area within the ULL but outside the Town of Leesburg lacks such facilities. The W&OD Trail System between the Upper and Lower Tuscarora Districts could become a major link in a comprehensive recreational system both within and outside the Town of Leesburg. Red Rock Park (natural preserve) in the Edwards' Ferry District and the Country Club golf course do not represent community oriented recreational space of the type which will be needed within the ULL.

TABLE 16

DENSITY/UNIT TYPE DETERMINATION FACTORS

IV. FACTORS FOR DENSITY TRANSFER FROM
AGRICULTURALLY OR HISTORICALLY SIGNIFICANT LANDS

EFFECT

If a developer records a preservation easement on important agricultural, historic or scenic land, a residential density bonus may be granted to his urban development site at the rate of one extra unit per every three acres of A-3 zoned land which is put under easement, excluding steep slopes and floodplains.

AFFECTED PARCELS

Agricultural

Sending Areas
(Examples)

Rockland Farm
Big Spring Farm
Raspberry Plain
Other active farms
or lands with Class
I or II soils

Historic

Sending Areas
(Examples)

Lands adjacent to
and/or including:

Oatlands
Rokeby
Woodburn
Balls Bluff battlefield

Development Areas
(Examples)

Stowers tract
Carr tract
Meadowbrook
Allman tract
International Pavilion tract

COMMUNITY FACILITIES PLAN

INTRODUCTION

Community facilities are of critical importance to the Leesburg Area Plan. The population growth is anticipated to be very high over the decade of the 1980's, and demand for public services will rise commensurately. The social, recreational and cultural needs of the Leesburg area are discussed in this section plus the important sewer, water and transportation needs for the area.

Capital improvement programming will follow from the recommendations made in the Area Plan and will greatly affect the fiscal resources of the County over the next decade.

Residential, industrial and commercial development require investments in a wide range of community facilities on the part of the County. These investments cover the provision of additional school seats, library and recreational facilities and general government services. This section of the Plan will analyze various elements of community facilities: sewer and water, transportation, schools, libraries, recreation, government facilities, landfills and solid waste and fire and rescue facilities. This plan will deal with the land use implications of community facilities planning. The Plan will explain the specific implications of suggested capital improvement projects and give specific recommendations for growth management in the Leesburg area.

SEWER AND WATER FACILITIES

BACKGROUND

Sewer and water systems in the Leesburg area are necessary to accommodate continuing residential and non-residential development. Residential service can be provided either by pipes from a central plant or by individual well and septic systems. Central systems can support much higher densities and can be extended into areas where individual systems are not practical, but the environmental, fiscal and growth impacts can be much more costly.

A. Sewer*

Sewer service within the Leesburg Area Plan boundaries is provided in three ways: the Leesburg waste treatment plant, small individual facilities and individual septic systems.

The Leesburg wastewater treatment plant was built in 1970 and is located south of Route 7 about a mile east of Town. The plant currently has a design capacity to treat 1.3 MGD (million gallons per day) of domestic sewage at a secondary treatment level and is actually handling about 1 MGD. Treated effluent is discharged into Tuscarora Creek about 1 1/2 miles above its intersection with Goose Creek.

Plans exist to expand the plant to a 2.5 MGD capacity at a current cost estimate of approximately \$4.5 million. The plant's treatment level may have to be upgraded from AST (advanced secondary treatment) to AWT (advanced waste-water treatment) in the 1980's to comply with the Virginia State Water Control Board's Dulles Area Watershed point source discharge effluent standards. In addition, calculations by the Virginia State Health Department in Culpeper indicate that expansion to 2.5 MGD may be less than the Leesburg area will actually need. Using Table 12's (page 87) holding capacity within the ULL of 11,350 - 18,510 dwelling units, Leesburg and the surrounding Urban Growth Area would eventually require 3.5 to 5.5 MGD of sewage treatment. However, the 1.2 MGD capacity increase could support approximately 4,000 additional housing units, two community (300,000 square feet) and four neighborhood (100,000 square feet) shopping facilities and office space for 5,000 employees.

There are eight small individual treatment facilities in the area: Goose Creek Industrial Park Plant, Rehau/DECO plant, Litton Bionetics Corp. stabilization lagoon (currently inactive), Goose Creek Country Club facility, Piedmont Motel facility and three private residential plants. These range in capacity from 3,400 GPD (gallons per day) to 10,000 GPD. Figure 5, page 10 shows the location of these facilities.

* The information in this section was taken from three studies done for the Town of Leesburg: (1) Wastewater Management Facilities Plan, STEP Section 201, Betz, Converse and Murdoch, Potomac Group, Inc., 1977; (2) Trunk Sewer Master Plan, Bengtson, DeBell, Elkin and Titus, January 1976; (3) Water System Study, Betz, Converse and Murdoch, 1973.

Presently only one sewer line in the planning area is managed by the Loudoun County Sanitation Authority. This is a line about 2500 feet in length leading to the Goose Creek sewage treatment plant which serves the industries in that area. All other waste is disposed of through septic systems which are approved by the Loudoun County Health Department based upon analysis of the existing soil and geologic conditions. A goal of the plan specifies that future package treatment plants should not be encouraged in the planning area.

B. Water

The entire Leesburg planning area is presently serviced by ground-water well systems. The Town is serviced by eight wells which currently supply approximately 1 MGD (million gallons per day).^{*} The capacity of the eight wells varies from .06 MGD (gallons per minute) to .6 MGD.^{**} The actual amounts pumped for March and April, 1980 averaged about 1 MGD.^{***}

The Town is constructing a 2.5 MGD water supply plant on the Potomac River just off Route 773 (Edwards Ferry Road) which can service about 1 1/2 times the present population. The plant could be expanded to an eventual 10 MGD. An 18 inch water line from the plant which runs west along Route 773 to the Route 15 Bypass where it connects with an existing line has already been completed. Figure 6, page 29 shows the location of the new Leesburg water treatment plant. Leesburg already provides water and sewer service to approximately 700 units outside the town limits.

In other sections of the Planning Area, water is provided by individual well systems. As a general rule, those areas with possible septic problems will also present difficulties in siting wells that are economically feasible to construct and can provide the minimum yield recommended by the federal government of five gallons per minute per household.

Fairfax City Water Supply System (Goose Creek and Beaverdam):

The Goose Creek and Beaverdam reservoirs are owned and operated by Fairfax City. The 225 million gallon capacity Goose Creek impoundment is located in the southeast corner of the Leesburg Planning Area while Beaverdam is just upstream outside the study area. The present daily capacity of the impoundment is 9.5 MGD and the plant will soon be operating at 18 MGD. It is essentially a reserve body. Plans call for eventual expansion of the Goose Creek/Beaverdam facility to 27 MGD. The Loudoun County Sanitation Authority purchases water from Fairfax City primarily to service the eastern Loudoun area.

* Resource Management Plan, page 175 and Bengston/DeBell, p. 36.

** Town of Leesburg, Water Supply Division, January 1980.

*** Virginia State Department of Environmental Health, Culpeper.

MAJOR ISSUES

The major issues for sewer and water facilities in the Leesburg area are which planning districts will receive central utility service and which jurisdiction will provide that service. The issue of service for planning districts relates directly to the character of future land use activity in each planning district. Responsibility for sewer provision is a complicated issue that will define the future for the still more complex issue of annexation and political jurisdiction of property surrounding the Town of Leesburg.

Other issues relating to sewer and water are:

1. Development type, character and density.
2. Staged or phased development activities.
3. Cost of sewer and water to the user.
4. Which watersheds should receive service.

RECOMMENDATIONS

A. Areawide Recommendations:

The planning policy that is recommended in the Area Plan is to manage growth by developing the planning districts in a logical sequence. Certain districts have been recommended for central sewer, other districts have not. Small areas of exception to the sequence will be so designated by the Area Plan. Cost implications to the average user are not addressed in the Plan.

1. Sewer Service Provision:

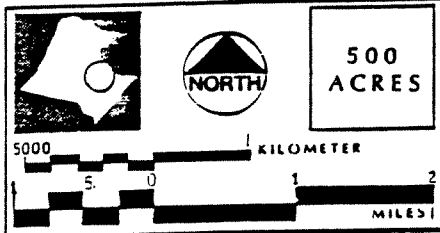
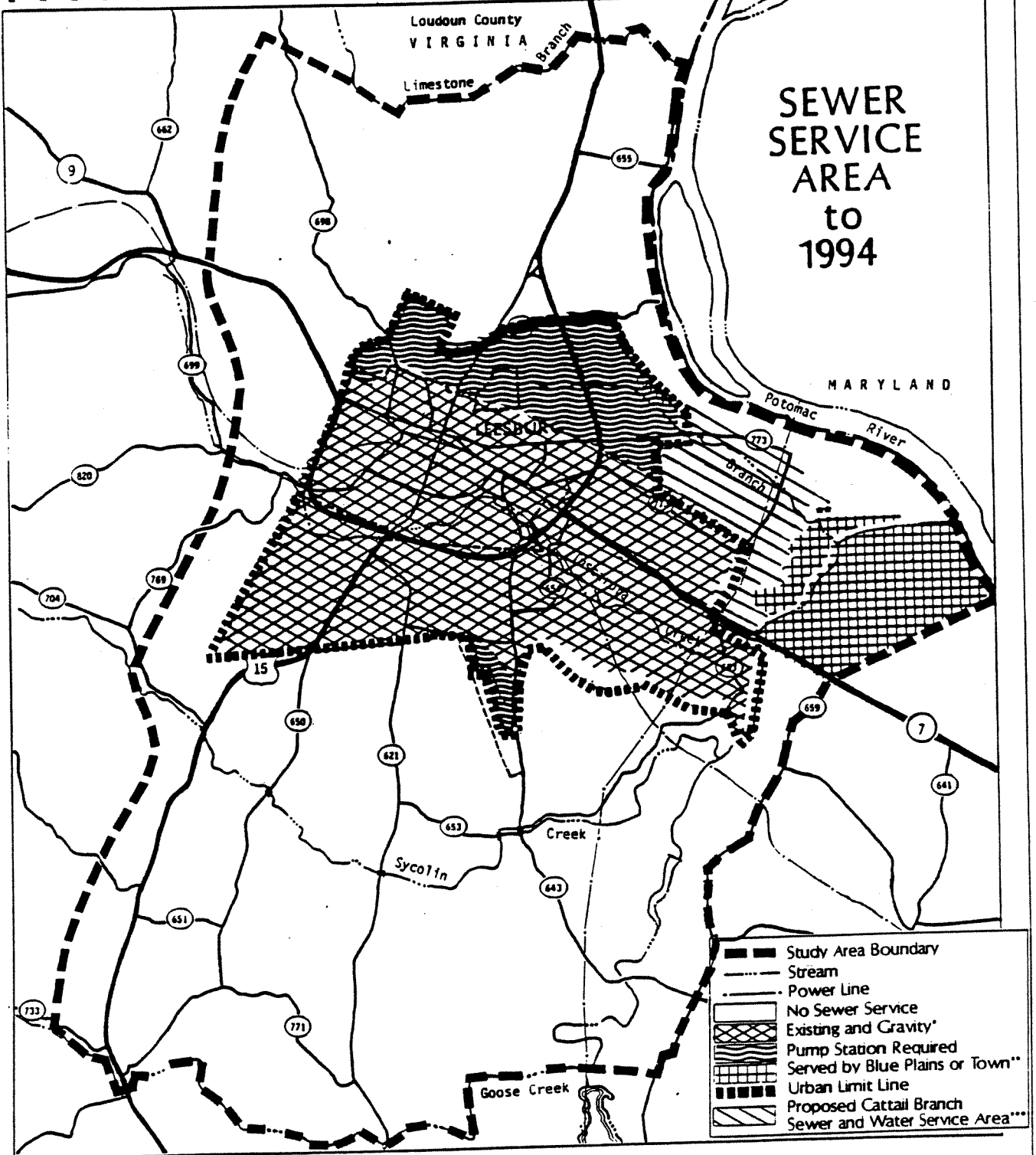
The area within the Urban Limit Line will be serviced by central sewer and water. The planning districts outside that line, Sycolin, White's Ferry, Oatlands, Goose Creek and the southern section of the Airport District, are not designated for sewer service within the time frame of this area plan (1994) except where water and sewer currently serves an existing parcel. The Town of Leesburg will ultimately be the exclusive provider of sewer and water facilities for the Cattail Branch Service Area west of Goose Creek in the Edward's Ferry Planning District.

2. Public Health Considerations:

Areas that are designated by the Department of Environmental Health as health problem areas with malfunctioning septic systems will be considered for cost effective and environmentally sound alternative wastewater disposal systems on a case by case basis.

FIGURE 16

LEESBURG AREA MANAGEMENT PLAN



*Existing and Gravity Service: Sewer Service either existing (in place) or available for gravity flow at a later date

** The Western portion of Xerox parcel lying west of Goose Creek will be served with sewer and water by the Town of Leesburg

***Ultimately, the Town of Leesburg will be the exclusive Provider of water and sewer facilities to the Cattail Branch Service Area.

LEESBURG AREA MANAGEMENT PLAN

3. It is understood that the Town has the authority to provide sewer service within the one-mile subdivision control subject to the County's Special Exception and Commission Permit procedures. It is clear that additional treatment capacity beyond the planned Step II expansion of the Town plant to 2.5 MGD will ultimately be required to service the area within the Town and the Urban Limit Line. Therefore, the Town and the County, through the Loudoun County Sanitation Authority, should work together to determine the most cost effective and environmentally sound method of providing sewer service to the area beyond the Town's current one-mile subdivision control.

B. Recommendations by Planning District:

The Urban Limit Line (ULL) is defined as the urban growth boundary beyond which central sewer service is specifically precluded. If and when the ULL is enlarged to include the Cattail Branch watershed, the Town of Leesburg will be the exclusive provider of water and sewer.

1. White's Ferry

Sewer service should not be extended into this area except for a small portion on the northern border of the Town of Leesburg. This area should only accommodate limited residential development and the Virginia/Maryland Regional College of Veterinary Medicine's Marian duPont Scott Equine Medical Center.

2. Catoctin Ridge

This area should not receive any central sewer service. (Approved exception is the rezoned Hoffman property.) Water service would be appropriate where feasible.

3. Town of Leesburg

A fundamental policy of the Comprehensive Plan is to encourage centralized residential and non-residential growth outward from existing community centers. Leesburg presently contains more than 650 acres of vacant land and high consideration should be given to promoting pumped or gravity sewer facilities throughout the undeveloped areas of the Town to promote development infill.

4. Edwards Ferry

This area should not receive sewer service during the period of this plan, except for the western portion with pumping capacity to the Town of Leesburg's sewer facility. Ultimately, the Town of Leesburg will be the exclusive provider of water and sewer facilities to the Cattail Branch Service Area.

5&6. Upper and Lower Tuscarora

These two planning districts are designated for extensive residential and non-residential growth. (pages 92 and 95). Commensurate sewer service is therefore encouraged throughout both districts.

7. Airport

This district is recommended as an exception to the watershed analysis in that the northern half of the area should accommodate growth with sewer service. Also the existing septic system for the airport is failing. Consequently, pumped sewer is appropriate before 1992 to reinforce the northern airport area and its continuing viability as an industrial development generator.

8. Goose Creek

This district has sewer service from Loudoun County's Sanitation Authority, north of Route 7, but no service is recommended south of Route 7 before 1992.

9. Sycolin

No sewer service is anticipated or projected before 1992. Nevertheless, sewer lines in this area should operate by gravity flow to the Upper Tuscarora Watershed trunk lines.

10. Oatlands

No sewer service is anticipated or projected in this important rural/agricultural planning district.

SCHOOLS

BACKGROUND

New residential development generates new students who must be accommodated either in existing or new schools. School construction necessarily follows development. For community design purposes, schools tend to become the focus for community activity and active recreation uses (see Recreation Plan, page 122) and thus they stimulate the formations of social groups and are instruments of community cohesion.

In the Leesburg area there are three existing elementary schools, one middle school and one high school. The three elementary schools draw students from a geographical area equivalent to that of the Area

Plan while the middle and high schools draw their students from a much larger area. The boundaries of this area are Furnace Mountain and the Route 15 Bridge to the north, Goose Creek and Lenah to the east and Middleburg to the west. Table 17 indicates that the Leesburg area presently enjoys a surplus of school places in all of its schools, but particularly in the elementary schools since the opening of Leesburg Elementary School in 1980. Anticipated future growth will absorb this capacity by 1992.

TABLE 17

1981 SCHOOL CAPACITY AND OCCUPANCY IN THE LEESBURG AREA

	<u>Use Capacity*</u>	<u>Enrollment** 9/30/80</u>	<u>Unused Seats</u>
Elementary:			
Catoctin	741	596	144
Leesburg	653	402	251
Douglass	266	137	128
Middle:			
J. Lupton Simpson	1,080	812	268
High:			
Loudoun County	1,170	972	198

A. School Population Growth

Two time frames need to be considered in the evaluation of future school needs in the Leesburg Area. Ultimate area residential buildout figures are necessary to determine additional elementary, middle and high school sites; 1992 projected development will

* Use capacity which differs from design capacity is an estimate of the actual number of students that could be accommodated by a particular school building given its special education and course offerings and particular class sizes. Use capacity is generally about 90% of design capacity for middle and high schools.

** Enrollment does not reflect special education classes at Douglass Elementary School.

indicate what actions the County would need to take in its Capital Improvement Program in order to keep pace with growth.

Table 18 below indicates the current school population, projected 1992 school population and that of ultimate residential buildout. The figures are based on 1,500-2,500 new units in ten years and 7,500-13,380 new units in the ultimate development.* The figures also assume that 60% of these units will be single-family, 30% townhouse and 10% apartments.** Student generation factors are also assumed for these housing types based on the 1980 School Census data. It should be noted that the middle and high schools currently attract 30% of their student population from beyond the study area, e.g., from Lenah, Aldie and Middleburg, that this ratio is assumed to continue in the future and that these additional pupils have been included in the following tables.

TABLE 18
CURRENT AND PROJECTED SCHOOL POPULATIONS
SERVED BY LEESBURG AREA SCHOOLS

	<u>Current Use Capacity</u>	<u>1992 Enrollment</u>	<u>Buildout Enrollment</u>
Elementary School	1,660	1,820 - 2,280	4,207 - 6,411
Middle School	1,080	1,110 - 1,300	2,434 - 3,450
High School	1,170	1,340 - 1,590	2,503 - 3,610

* Based on calculations from the draft "Residential Development Activity Report", prepared by the Loudoun County Department of Planning and Zoning.

** This approximate ratio of single-family detached 60%, townhouse 30% and apartment 10%, development approximates to Loudoun's past development experience.

B. Projected New School Construction

Table 19 lists current school capacity and the additional school places needed to accommodate projected students in 1992 and at residential ultimate buildout, based on the assumptions noted in the section above.

TABLE 19
CURRENT SCHOOL CAPACITY AND NEEDED ADDITIONAL PLACES
IN THE LEESBURG AREA

	<u>Current Use Capacity</u>	<u>Unused Capacity</u>	<u>Additional Places by 1992</u>	<u>Additional Places at Buildout</u>
Elementary School	1,658	523	162 - 622	3,684 - 5,888
Middle School	1,080	268	30 - 220	2,075 - 3,182
High School	1,170	198	170 - 420	2,305 - 3,412

RECOMMENDATIONS

Table 18 suggests that Loudoun may need to build an additional elementary school by 1992 while the increased numbers of middle school and high school students could be accommodated through geographical catchment boundary changes or additions to the existing facilities. The table further indicates that the County will need to reserve land in the immediate Leesburg area for five to eight additional elementary schools, two to two and a half additional middle schools and two to two and a half additional high schools to accommodate ultimate growth beyond 1992. These new middle and high schools would need to be larger than the existing facilities or the present size of the catchment areas would need to be reduced which would require the construction of other schools elsewhere in the County.

The Upper Tuscarora Planning District is already served by the J. Lupton Simpson Middle School but anticipated development at buildout will require the location of two or three elementary schools and one high school. One or two elementary schools will be needed to serve the residential communities planned in the northeastern portion of the ULL in the Edwards' Ferry and Lower Tuscarora Planning Districts. The northeastern sector will also require the location of an additional

middle school. Currently each elementary school requires 15 acres of land while a middle school requires 30 acres and a high school requires some 35 acres. These properties need to be centrally located within the residential communities in order to achieve community goals, promote local use of active recreation spaces in non-school time and reduce busing. Consequently, the locations of the properties need to be identified at the earliest possible time and certainly should be a factor for consideration at any rezoning. School properties should be considered as suitable elements of a proffer arrangement in a rezoning proposal around the Town of Leesburg in the designated growth districts, especially since location and purchase of these sites after 1992 would be very difficult and certainly costly.

The existing cooperation between the School Board and the Department of Parks and Recreation in the use of the playing fields is cost effective and practical and this facility sharing shall be required.

New facilities, both grounds and buildings, shall be designed for cooperative use of schools, the Parks and Recreation Department and community groups.

LIBRARIES

BACKGROUND

Loudoun County's library system has been severely strained by growth in the last ten years. The Thomas Balch Library in Leesburg which contains 2,725 square feet of space should have approximately twice the collection of books and three to four times the space (an additional 9,000 square feet) to meet State standards. Furthermore, the Thomas Balch Library cannot accommodate handicapped persons and needs additional toilet, cataloging and copying facilities. Major expansion on the present site to accommodate new area residents would be difficult.

State standards suggest that the library system provide 0.6 square feet of facility space, 0.9 square feet of parking and 2.5 volumes per person in the service area.* Every new home built in the Leesburg vicinity would accordingly project the library system into a growth of some two square feet of facility space, five to six square feet of land and nine additional volumes. 1,500 - 2,500 new homes by 1992 would thus project the Library into expansion of some 3,000 - 5,000 square feet on an additional one-third acre of land.

* State of Virginia Library Board, Recommended Minimum Standards for Virginia Public Libraries (Richmond, Va., approved Jan. 30, 1978)

ISSUES

The major issues facing the Leesburg library will need to be addressed in the Recreation and Culture Service Plan which is now underway. The proposed Service Plan for the library system should seek to establish whether the library should remain in its present location or whether the general library functions should be relocated with Thomas Balch converted into a special archive for local historical documents.

The Service Plan will furthermore need to describe what service strategy and level of service the library system would seek to establish and by what date.

PARKS AND RECREATION

BACKGROUND

As growth and population increase, the Leesburg area will require additional parks and active and passive recreational facilities. The County Parks and Recreation Department presently is using land owned by either the Loudoun County School Board or others for league use in active outdoor sports such as softball, baseball and soccer. Passive recreation is provided at Red Rock Wilderness Overlook Regional Park on the Potomac, and the W&OD Trail, both owned by the Northern Virginia Park Authority.

Based on the projected population of approximately 18,000 for the planning area by 1992 and the current state standard of ten acres per thousand people,* the need will be for 155 to 185 total acres in park and recreation land. Ideally, this acreage should be equitably distributed and easily accessible to the various areas of population concentration and should include different sizes and types of parks. These are:

1. Neighborhood Park - Five acres; one-half mile service radius; facilities such as open field, playground for small children, multi-purpose courts.
2. Community Park - about 20 acres; one to two mile service radius; facilities such as play areas for small children, tennis, basketball, ball fields, picnic area, swimming.
3. District Park - about 50 acres; five to seven mile service radius; extensive variety of active and passive facilities.

* Outdoor Recreation Standards for Virginia, Virginia Commission of Outdoor Recreation, 1980, p. 3.

4. Conservation Park - no specific size; only passive uses such as hiking, biking, picnicking; most appropriate in environmentally significant areas such as floodplains, stream valleys, or steep slope areas.

It is particularly important that future park sites be located in the Planning Area because Leesburg is the geographical and cultural center of the County.

Active Outdoor Recreation

One of the major components of a public park and recreation program is the provision of active outdoor recreational facilities. Listed in Table 20 are facility standards obtained from the Virginia Commission of Outdoor Recreation. These are based on: National Park and Open Space Standards by Buchner. Also included is the number of each facility that will be needed in 1992 based on the area's projected population of approximately 18,000.

TABLE 20

RECREATIONAL FACILITY STANDARDS

	<u>Standard</u>	<u>Population</u>	<u>Number Needed by 1992</u>
Basketball Court	1 per	2,000*	8
Tennis Court	1 per	2,000	8
Baseball Field	1 per	6,000	3
Softball Field	1 per	3,000	6
Swimming Pool (25 meter)	1 per	10,000	1 or 2
Golf Course	1 per	25,000	1
Soccer Field	1 per	3,000	6

The lease between the County and Goose Creek Country Club for use of the swimming pool has expired so there is no longer any public swimming facility in the Leesburg area. According to the County Parks

* State standard was 1 per 500 which is more appropriate for use in urban areas.

and Recreation Department, the primary outdoor active recreation needs of the Leesburg area will be a swimming pool and lighted multi-purpose fields that can be used for baseball, softball and soccer.

RECOMMENDATIONS

1. As part of a comprehensive Parks and Recreation Service Plan, the County should establish the kinds of parks (neighborhood, community, district and conservation) and the number of different active outdoor recreation facilities (ballfields, tennis and basketball courts, etc.) needed to serve the projected 1990 Leesburg area population.
2. The County should acquire park sites in the Leesburg area in conjunction with other CIP projects such as purchase and dedication of school sites.
3. The County Parks and Recreation Department and School Board should establish policies and programs that clearly define the use and management of school sites for public recreation purposes.
4. The County should acquire through purchase, easement or other means or have dedicated to either a homeowner's association or the Northern Virginia Park Authority, the 100 year flood-plains of the major watercourses such as Goose Creek, Sycolin, Tuscarora and the Potomac. These stream valley corridors can fulfill the need for a system of bike and pedestrian trails and conservation parks, as well as accomplish the adopted environmental goal of protecting the area's water resources.
5. The County should investigate the feasibility of converting the sanitary landfill to a park for use after landfill activities are completed (around 1990).
6. The active outdoor recreation facilities that have the highest priority for acquisition are a swimming pool and lighted multipurpose athletic field.
7. A general plan for a bikeway/pedestrian system shall be adopted for the area and a detailed bikeway/pedestrian system and activity center, linked to the W&OD Trail, if possible, shall be included in all residential and non-residential development.

8. Under the provisions of the Loudoun County Zoning Ordinance for cluster developments and planned communities, a certain percentage of the site should be set aside for maintained active and passive recreation areas. This land should be well drained and on slopes from 0 - 5%. As recommended by the National Recreation and Parks Association, a minimum of 30 acres of land for recreation should be provided for every 1,000 people.

SOLID WASTE

BACKGROUND

The County Sanitary Landfill, located in the Oatlands Planning District, on Route 621, began operation in 1971 on a 102 acre site. Twenty-three acres of the site are currently being used for active filling purposes. In April 1981, the County Board of Supervisors approved the purchase of an additional 27 acres to bring the total to 129 acres. The Board also adopted a policy that no future expansion of this landfill site will occur. According to the Loudoun County Sanitary Landfill Study by Sterns, Conrad and Schmidt, First Phase, Spring, 1981, the disposal capacity will be used by 1990.

Based on the Board's adopted policy and the 1990 projected date for exhaustion of landfill capacity, the County will have to address its future solid waste needs soon. While the Leesburg Area Plan is only for 10 years, solid waste planning must occur before this date.

The Town of Leesburg owns a 23 acre site that has been designated by special exception for landfill use. The site is located on Route 860, approximately one-half mile south of the planning area's Goose Creek boundary.

RECOMMENDATIONS

1. The County will have to plan for its post 1990 solid waste needs. Two major areas of investigation should be:
 - a. Location of suitable landfill sites within the County. Issues to consider are: soil type, topography, depth to water table and bedrock, drainage population projections and growth rates, zoning, transportation, surrounding land uses.
 - b. Possibility for either a cooperative regional or a multi-jurisdictional solid waste solution, such as resource recovery.

2. The County should study the feasibility of converting the present landfill site when exhausted for landfill purposes to a County park.*
3. To ensure that the health and safety of surrounding residents is not endangered, the County should:
 - a. Maintain an adequate vegetational buffer around the existing landfill to reduce the hazards of methane gas and dust migration.**
 - b. Perform periodic testing of surrounding wells to monitor possible water supply contamination.**

FIRE RESCUE

BACKGROUND

The Leesburg Area is served by a volunteer fire station located on Loudoun Street and a volunteer emergency rescue station located on Catoctin Circle, both in the Town of Leesburg. The central concern of the Fire/Emergency Rescue Service is the provision of prompt and efficient service to all residents at a moment's notice. At present, the Leesburg area is well protected, but growth to the east and north of Town may pose a locational problem to the volunteers in providing adequate fire and rescue service.

ISSUES

The Fire/Emergency Rescue Service has been challenged over the past decade by growth pressures throughout the County. The need for financial assistance from the County has increased but the volunteer nature of the service has never been questioned. This trend is expected to continue in the Leesburg area over the life of this plan, with the volunteer aspect as the heart of the service.

Residential and employment/commercial growth around Leesburg will necessitate the acquisition of additional equipment and a substation. This station will require good access to and community visibility from the new residential areas since much of the volunteer support will need to come from them. However, it must be located in a position which can efficiently service the new industrial growth such as Leegate.

* Also mentioned under the Parks and Recreation section of this Plan.

** Both of these are also mentioned in the Environmental section.

RECOMMENDATIONS

A fire/rescue station site formed one of the proffers for the Leegate Industrial Park, located on Route 7, east of the Town. This reflected county concern to provide fire protection to anticipated employment and residential development east of Leesburg. The nature of a volunteer firefighting force, however, strongly suggests that a future fire station should be located in close association with residential development from which the volunteers would be drawn. Consequently, another fire station site in the Lower Tuscarora/Edwards' Ferry District should be sought. The new site should be located on the circumferential road which crosses Leegate and timing of construction will need to be determined by the pace of development and construction of the circumferential road.

GOVERNMENT FACILITIES

BACKGROUND

The impact of new residential development on County facilities is affecting the County in terms of physical space and programming requirements. Development creates demand for additional judicial, administrative, revenue, technical services and personnel who need facilities in order to carry out their tasks.

In terms of undeveloped land, the County owns ten acres of land within the Town. Part of this land is being used for parking, but it could be considered for expansion of County facilities.

MAJOR ISSUES

The major issues involving government facilities in the Leesburg Planning Area are locational. The projected population growth over the next decade will necessitate new County government facilities. Questions include: Should the County begin decentralizing its service to various locations in the County? What location would be most convenient for all the citizens of the County? If Leesburg, which is centrally located and is the historic County Seat, is to continue as headquarters for the entire County government, are all those facilities compatible with the land uses of the Town and with its historic character? Should some of the County's government functions be expanded outside the Town limits, but within the planning area? To reinforce the existing Town center is an important land use consideration and County governmental facilities are critical to the downtown identity.

RECOMMENDATIONS

All government facilities of Town and County should remain centralized within (or around) the Town and additions to the County facilities should be in an accessible area in the Town of Leesburg. Whenever possible, administrative, recreational, health, social and psychological services, libraries and the like should be centrally located in and around the Town of Leesburg if such a decision demonstrates a cost-effective delivery of public services and if Leesburg remains an integral part of the County.

FISCAL IMPLICATIONS

Based on the buildout population ranges and projected population increases in the 1980-82 period, the magnitude of necessary capital improvements during the life of the plan can be estimated in 1981 dollars. Table 16 below shows the magnitude of capital improvement costs generated by Leesburg's growth in the 1980-82 period and at full buildout. It should be noted that these costs do not include road, sewer and other major utility costs, though they do include Fire/Rescue capital costs. It should be noted that the population, and specifically the student generation ratios which were used to create Table 21, might change dramatically in the 30 - 40 years which may be needed to achieve buildout.

TABLE 21
ESTIMATED LEESBURG AREA CAPITAL COSTS
1992 and at Buildout

	1980-1992 2,130 du.	Buildout (Including Town of Leesburg) 2-3 du/ac.
Additional Dwelling Units	---	7,660 - 14,820
Additional Population	6,090	21,919 - 42,407
Schools	\$3,995,000	\$73,185,000 - \$98,472,000
Libraries	609,000	2,003,000 - 4,262,000
Recreation	761,250	2,751,000 - 5,322,000
General Government	1,534,680	5,545,000 - 10,724,000
Fire/Rescue	462,840	1,672,000 - 3,244,000
Total	\$7,362,770	\$85,156,000 - \$122,024,000

Table 21 assumes that these facilities would be financed out of revenue. Were the County to borrow funds through 8%, 20-year bonds, the costs above would double.

TRANSPORTATION PLAN

INTRODUCTION

The purpose of the transportation section of the Leesburg Area Plan is to provide the rationale for necessary road improvements to meet the existing and future travel demands. Adequacy of existing roadways is reviewed plus demand for new roadways is projected.

An important transportation element in the Leesburg Planning Area is Godfrey Field. Potential improvements around the airport are discussed.

BACKGROUND

The Leesburg vicinity is serviced by many secondary roads plus two major primary road facilities (Routes 7 and 15) which provide regional access to the area.* Capacity exists on the primary roads to handle growth in the next decade; the secondary roads will need realignment, redesign and general improvements to meet demands during the same time period. Many of the existing secondary roads in the Leesburg area are defined as "non-tolerable" by the Virginia Department of Highways and Transportation (VDH&T) as they are not built to a standard that will adequately and safely carry current traffic volumes. Any unpaved road with average daily traffic volumes in excess of 50 vpd is deemed non-tolerable by VDH&T and therefore in need of improvement.

* The Town of Leesburg maintains the roads within its corporate limits. The State maintains the balance of the roads in the planning area. VDH&T shares in the cost of maintenance and construction of the streets within the corporate limits of the Town.

TABLE 22

HIGHWAY INVENTORY - MAJOR SECONDARY ROADS

<u>Non-tolerable Roads</u>	<u>Hard Surface Roads</u>	<u>Roads Scheduled for Improvement</u>
Routes:	Routes:	Routes:
820	621	773
654	643	653
773	653	643
653	655	654
643	698	621
769	654	698
740	649	650
698	650	797
651	704	699
		662
		655
		820

The following traffic volumes were taken by the Highway Department in 1980 and represent the latest figures available.*

TABLE 23

AVERAGE DAILY TRAFFIC - 1980

<u>Route</u>	<u>From</u>	<u>To</u>	<u>Average Daily Traffic</u>
7	Broad Run	Route 15	11,305
7	7	15S Leesburg	6,390
7	15S	7W Leesburg	5,960
7	7W Leesburg	Clarks Gap	9,120
15 (Bypass)	15N Leesburg	7E Leesburg	3,675
621	654S	654N	1,469
643	654S	654N	665
650	771	651	107
704	15	797	1,494
820	699	662	151
662	703	704	1,187
698	Leesburg	.5 N of Town Limits	216
699	769	Leesburg	710
654	7	.35 S of Route 7	262
655	15	Landing	254
703	662	.75 N of 662	86

* Primary road traffic counts were taken by VDH&T in 1979.

MAJOR ISSUES:

The critical highway improvement issues in the Leesburg area will center around the secondary road improvements necessary to accommodate new commercial, industrial and residential growth. The goals are to separate residential from commuter and industrial traffic in order to reinforce community identity and to eliminate traffic conflicts.

The off-site improvements to primary and secondary roads within the planning area should be borne by both the developers and VDH&T. Due to funding problems experienced by VDH&T, more improvements must be contributed by the private sector to promote highway safety and good road design.

All development, both residential and non-residential, will be reverse frontage in design on major or minor collector roads and on all primary roads within the planning area.

RECOMMENDATIONS:

A. Areawide Transportation Recommendations:

Many transportation issues are areawide or concerned with two or three planning districts. Areawide recommendations for the following corridors are as follows (See Figures 17, page 130 and 18, page 133 for recommended improvements):

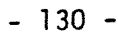
1. Route 15 Corridor (from Route 621 to southern boundary of Planning Area)

U.S. Route 15 is a primary north-south arterial road. In the Leesburg vicinity it is the major north-south highway for the area.

South of Town:

- a. Controlled access design provisions should be incorporated into the roadway as the adjacent property develops.
- b. Four-lane improvements should be made from just south of Virts Corner to the edge of the Town.
- c. Scenic Byway designation should be sought from Route 704 to Goose Creek from the Commission on Outdoor Recreation and the State of Virginia.

LEESBURG AREA MANAGEMENT PLAN



- d. Minimum building setbacks for the Route 15 Corridor will be as follows:

Within the Urban Limit Line: 100 feet
Outside the Urban Limit Line: 300 feet

These standards can be waived on Planning Commission recommendation based on topography and existing vegetation that would preserve the rural character of the entire corridor.

- e. Widening of shoulders to improve safety and accommodate truck traffic. Add left turn lanes at routes 650 and 704.
- f. At-grade intersections should be adequately spaced with a maximum of three between the Bypass and Virts Corner.
- g. Adjacent property owners should dedicate right-of-way in order to improve the geometric design and sight distances at the intersection at Virts Corner (Routes 15, 650 and 654).

East of Town: (Route 7 Bypass to Limestone Branch)

- a. Route 15 Bypass (east and north of Town) should be four-laned.
- b. The Balls Bluff Road, from its intersection with the Route 15 Bypass to the battlefield above the Potomac River, should be maintained as a gravel surfaced approach to the historic site. This road should not be improved or used as an entrance to residential subdivisions in the Edwards' Ferry District.
- c. The existing interchange with the Route 7 Bypass should be redesigned and improved for safety.
- d. Grade-separated interchanges are necessary for any commercial development.
- e. The Edwards' Ferry intersection should remain open and be made grade-separated.
- f. Fort Evans Road intersection should be closed off when development commences.

North of Town: (U.S. Business Route 15)

- a. Planned growth in this corridor does not indicate the need for four-lane improvements to U.S. Business Route 15.
- b. Intersection with Bypass should be redesigned and improved; 100 foot setback on both sides of road.
- c. Route 698 should be improved within the Urban Limit Line. The new residential and institutional development north of the Town of Leesburg should eventually have direct access from Route 15 North. Initially, the institutional development will access from Route 698 (Old Waterford Road) but internal design should accommodate access to Route 15 when the residential/institutional property to the south develops and the collector roadway to Route 15 is constructed.
- d. Intersection with Bypass should be redesigned and improved; visual and noise buffering can be achieved through such land use techniques as the strategic location of landscape buffers, earth berms, reverse frontage development and additional building setbacks from the road right-of-way. These techniques should be considered along all arterial and major roadways, but should be required along Route 15, the Route 15 Bypass, Route 7 and the W&OD Trail. Noise barriers of concrete would not be appropriate.

2. Route 7 Corridor

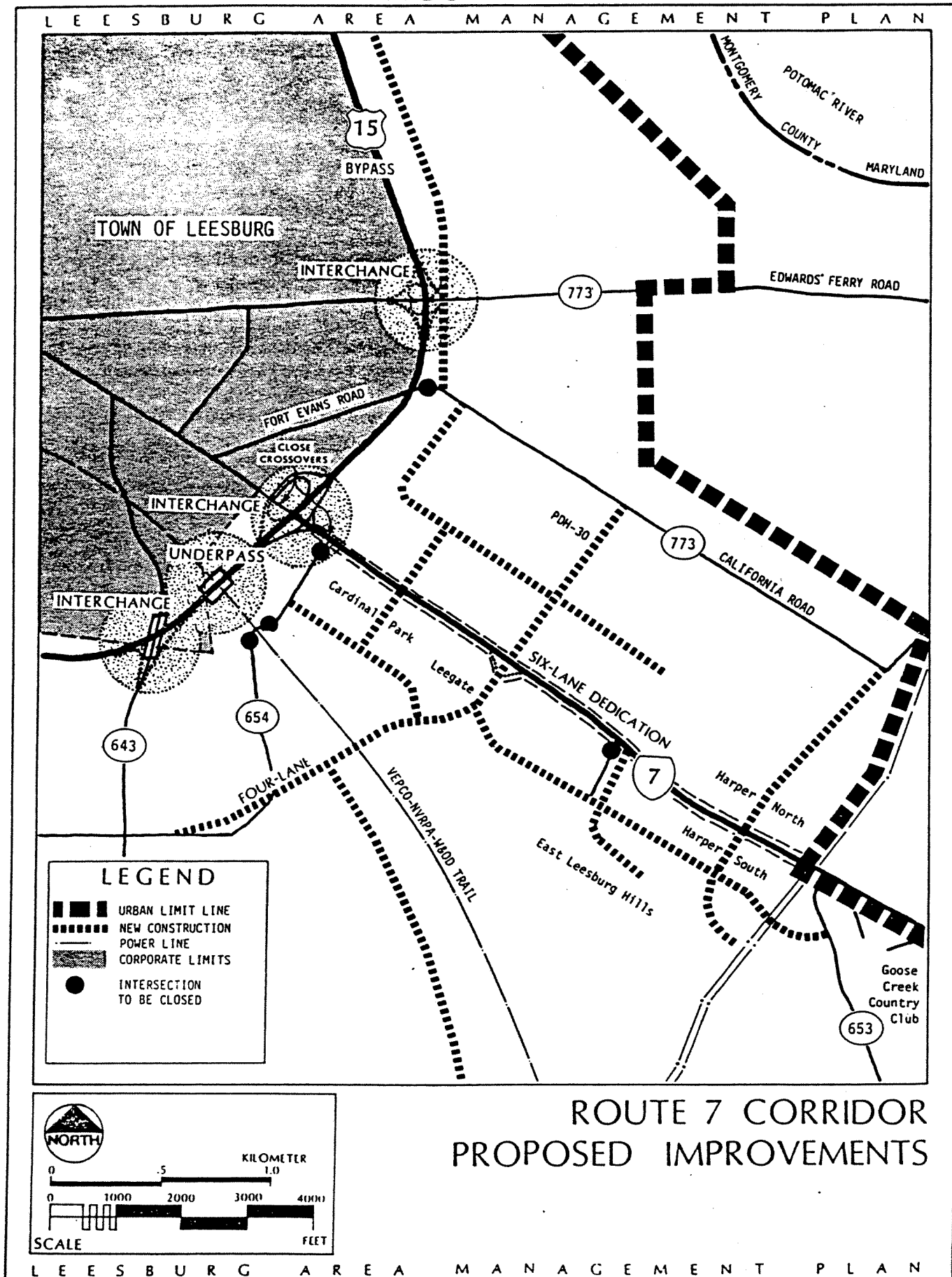
The Route 7 Corridor east of town is seen as the "Gateway" to the planning area. The land uses are varied, but all types represent intensive land development and, therefore, are high traffic generators. The following specifications are encouraged:

The provisions of the Route 7 Corridor Study submitted by VDH&T in August 1977 are hereby adopted as proposed on Figure 18.

Amendments to the Corridor Study are:

- a. Add grade separation of the W&OD Trail.
- b. Eliminate the realignment of the eastbound lane from Route 653 over Goose Creek.
- c. Add extension of relocated Route 654 north of Route 7.

FIGURE 18



- d. Right-of-way for the additional east- and westbound lanes could be dedicated to VDH&T.
- e. Add acceleration and deceleration lanes for any intersection with Route 7 unless waived by the Planning Commission and VDH&T.
- f. Close cross-overs at Route 7 Bypass and existing Route 654.
- g. See Figure 18, Page 133 for additional improvements and general locations.

3. Other Provisions of Route 7 Corridor

- a. Limit need for signalization to keep the traffic flow as steady as possible.
- b. The existing intersection of Route 654 with Route 7 should be closed and realigned to intersect with adjacent Leegate Industrial Park to the south and continue to California Road (Route 773) to the north.
- c. The total number of at-grade crossovers between the Route 7 Bypass and Goose Creek should be limited to seven.
- d. Route 654 should extend north from the Leegate Industrial Park in a direct line to Route 773 (California Road). All adjacent properties north of Route 7 should access off this major collector, four-lane divided highway.
- e. The Route 7 Corridor will incorporate building setbacks in the Highway Overlay zone. Within the Urban Limit Line a minimum of 100 feet is required for setbacks. Outside the ULL a minimum of 300 feet is required for building setbacks.
- f. Visual and noise buffering techniques should be considered. (See Environmental section, pages 36, 41, 42.)

4. Transit Considerations:

The Leesburg area functions as a focus for transit activity with park-and-ride-lots and private bus facilities operating in and around the Town. The following recommendations are suggestions to reinforce the viability of these transit facilities:

- a. Park-and-ride lots should be incorporated into the Route 15 south area, within the Urban Limit Line, as development occurs.
- b. New residential subdivisions should incorporate bus and transit facilities in their initial design plans, i.e., bus shelters, bus turn-around space and park-and-ride areas.

B. Recommendations by Planning Districts (See Figure 17, page 130 and figure 19, page 136.)

1. White's Ferry

Primary Roads Improvements:

- a. Route 15: Improve per above specifications.
- b. The Marion duPont Scott Equine Medical Center access point on Route 15 as explained on page 132, should be implemented when future development takes place in the area.

Secondary Roads Improvements:

- a. Route 655: Improve vertical alignment by eliminating humps in the road.
- b. Route 698: Improve with better alignment and hard surface beyond the Morven Park entrance.

White's Ferry Operation:

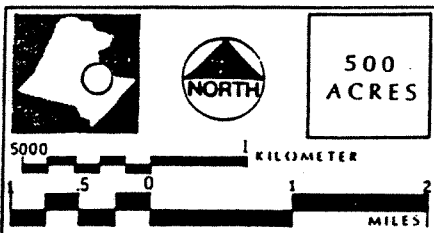
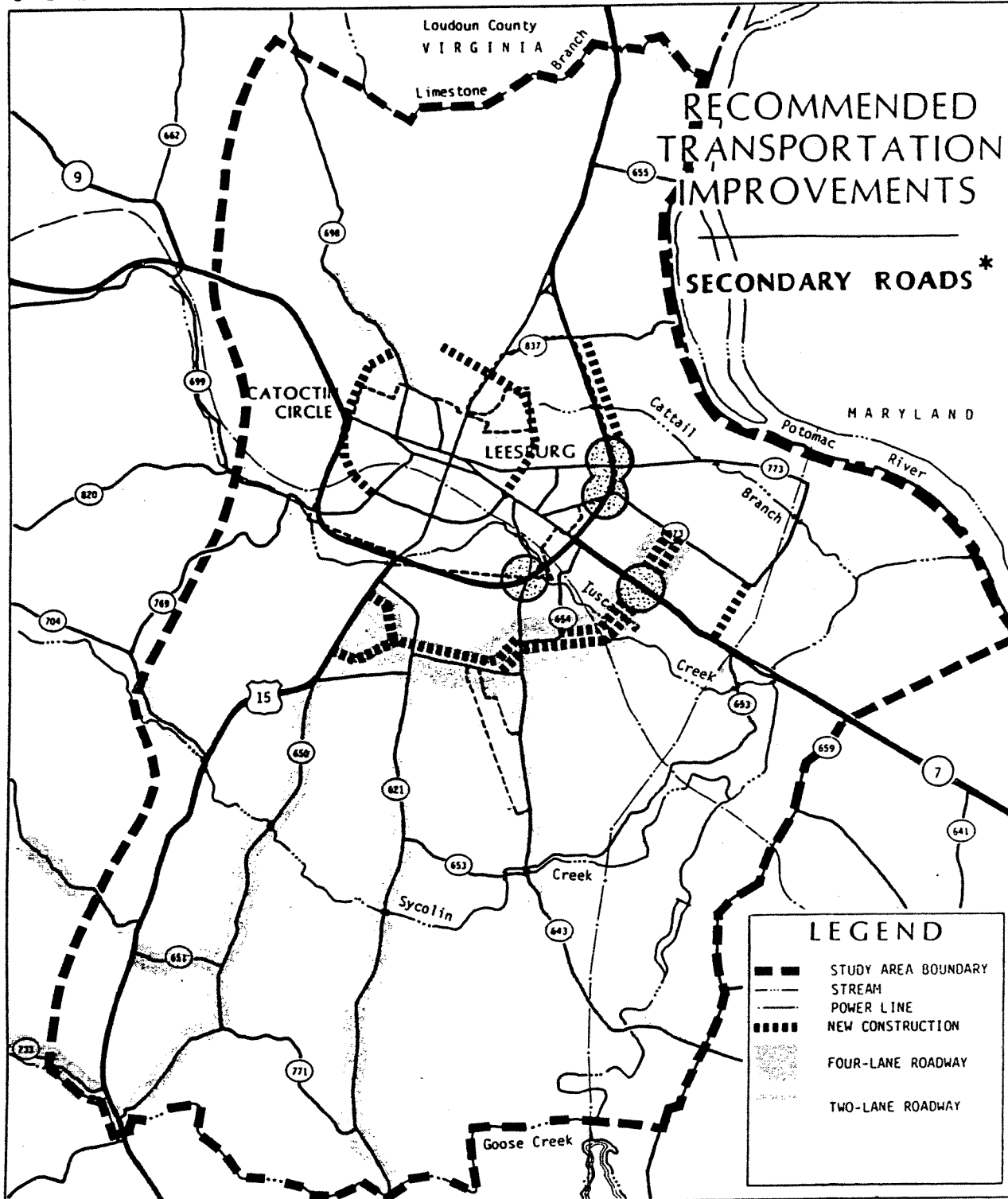
Encourage the continuing viability of the operation with improved access on Route 655 and parking facilities.

2. Catoctin Ridge

- a. Route 699 should be improved with bridge relocation and alignment changes.
- b. Route 820 should be hard surfaced as soon as possible.
- c. Route 769 should be hard surfaced.
- d. Route 733 should eventually be improved to an entirely new alignment out of the floodplain. In the interim, improved maintenance treatment is recommended.

FIGURE 19

LEESBURG AREA MANAGEMENT PLAN



* SEE FIGURE 17
for ROUTE 7 CORRIDOR IMPROVEMENT
East of the Town of Leesburg

LEESBURG AREA MANAGEMENT PLAN

3. Edwards Ferry

Primary Road Improvements:

Route 15 per above.

Secondary Road Improvements:

Route 773 improved from Route 654 extended west to the Edwards Ferry intersection.

4. Upper Tuscarora

The goal in this area is to separate the western residential traffic from the industrial traffic to the east. A circumferential, four-lane roadway should be designed and incrementally built from Route 15 (at Country Club subdivision) to Route 7 (at the Leegate property).

Primary Road Improvements:

- a. Route 15 specifications per above, including limited access design to Virts Corner.
- b. Signalization and the extension of the median strip of Route 15 is recommended.
- c. A park-and-ride lot is necessary to promote car-pooling activities.

Secondary Road Improvements:

- a. Intersection Route 643 and the Bypass should be redesigned and grade-separated.
- b. Route 643 to the east of the airport should be designed and improved as a four-lane roadway to airport and as a two-lane roadway from the airport to Route 659. Sufficient right-of-way should be dedicated to accommodate these improvements.
- c. Route 654 should be designed as a four-lane collector roadway from Route 15 to Route 7. The extension north of Route 7 to Route 773 should also be designed as a four-lane road. Route 654, south of Tuscarora Creek, should be realigned from Route 643 on a direct line north of the Middle School to Route 621. The intersection with Route 15 should be located at a point with the maximum sight distance, spacing and safety.

- d. Route 621 should be improved to accommodate anticipated growth with right-of-way dedicated for a four-lane roadway within the Urban Limit Line.

5. Lower Tuscarora

Primary Road Improvements:

Route 7 should eventually be constructed to a six-lane road section. During the life of this plan only dedication of right-of-way is necessary in order to build the six-lane improvements at a later date.

Secondary Road Improvements:

- a. Route 654 should be improved to a four-lane, divided roadway from Route 643 to Route 7 and north from Route 7 to California Road (Route 773) as a reverse frontage, four-lane road.
- b. Route 653 should be improved to an adequate industrial standard as the area develops with the use of industrial access funds, if possible.
- c. The W&OD Regional Trail should be grade separated crossing the Route 7 Bypass and the trail itself should be paved by the Northern Virginia Regional Park Authority within the entire Planning Area.
- d. North of Route 7, opposite Harper South: This general area should be serviced by a single access point off Route 7 with service roads or cul-de-sacs providing access to the adjacent properties north of Route 7. Access through to Route 773 should be discouraged until this road is upgraded to an improved VDH&T standard. No additional crossover is recommended at this Route 7 intersection.

6. Airport

Secondary Road Improvements:

- a. Route 654 per above specifications.
- b. Route 643 per above specifications.

Airport Facility Improvements:

The Airport District is recommended for increased traffic and development; sewer is anticipated in the near future. The land use should follow a pattern of employment development to the east with open space/office to the north. Otherwise, an area of 1,000 feet surrounding the airport facility should preclude residential development through implementation of an overlay zone. (See Figure 6, page 29.)

Specifications:

- a. Existing PD-IP should remain as defined.
- b. No improvements to the proposed runway to the west of the airport during the life of this Plan.
- c. Height limitations for land uses north of the airport.

7. Goose Creek

Secondary Road Improvements:

- a. Route 659: Improve with industrial access funds as more industrial property develops.
- b. Route 643: Improve existing two-lanes with right-of-way and alignment improvements as necessary.

8. Sycolin

Primary Road Improvements:

Route 15: Widening of shoulders for safety to accommodate significant number of trucks using Route 15. Left turn lanes at Route 704 is recommended.

Secondary Road Improvements:

- a. Route 621: Improve with better alignment and widening from Simpson Middle School to Goose Creek.
- b. Route 650: Improve with hard surface at Route 15 and better alignment to the north. Add left turn lane on Route 15 to improve access to Route 650.

- c. Route 643: Improve per above specifications.
- d. Route 651: Improve with hard surface east of Route 15 to Route 650.

9. Oatlands

Primary Road Improvements:

Route 15: Widening of shoulders for safety to accommodate significant number of trucks using Route 15. A left turn lane at Route 650 is recommended.

Secondary Road Improvements:

- a. Route 621: Improve per above specifications.
- b. Route 650: Improve per above specifications.

COMMERCIAL PLAN

INTRODUCTION

An economically viable commercial/retail sector is a critical element of any community. Both shoppers goods and convenience items should be available to Leesburg area residents. Shopping areas will provide for community and social activities as well as commercial exchange.

Land use proposals should anticipate retail needs for future populations while being compatible with and complementary to existing commercial uses both within the Town and within the Urban Limit Line. New commercial facilities will be necessary within the Urban Limit Line and the following plan reflects such needs.

BACKGROUND

A. Existing Land Use:

There are currently developed within the Town of Leesburg approximately 500,000 square feet of shoppers and convenience commercial space, excluding auto-oriented uses. These land uses are concentrated in downtown or "historic" Leesburg and around the Leesburg Village and Leesburg Plaza community shopping centers. At this time the only commercial uses located in the planning area are the Leesburg Ford Dealership, Lowe's, Perry Supply Co. and EURAM Furniture on Route 7 and the Honda Bicycle and Exxon Service Center on Route 15 south of the Town.

B. Existing Zoning:

A large amount of vacant land zoned for retail commercial and highway uses is available within the planning area. Most of the property owned by International Pavilion is zoned C-1 Commercial and encompasses 225 acres directly east of the Route 15 Bypass between Edwards Ferry and Fort Evans (California) Roads. This property could accommodate upwards of 3,000,000 square feet of commercial space. The EURAM property on the north side of Route 7 one-half mile east of the Route 15 Bypass encompasses 20 acres of PD-CH zoning and could accommodate an additional 100,000 - 150,000 square feet of commercial space. Just to the west of the EURAM property on the south side of Route 7, the Cardinal Industrial Park includes 20 acres of highway commercial zoning, enough to accommodate 175,000 square feet of space. In addition, the adjacent

Leegate property could accommodate retail uses which would support and be compatible with the proposal for several million square feet of office uses. All these sites have readily available or extendable sewer and water service from the Town of Leesburg.

Other commercially zoned properties in the planning area include two 10 acre sites on the south side of Route 7 at the Leesburg Bypass interchange, the Caradoc Hall property east of EURAM at Route 7 which is limited to a restaurant/inn use, and rural commercial areas several hundred feet north of the intersection of Route 643 and Route 653 south of Godfrey Field and at the intersection of Route 15 and Route 704 south of Leesburg.

MAJOR ISSUES:

The aforementioned zoned but undeveloped sites could accommodate many of the retail commercial and office needs of the Leesburg area for many decades, but the rate and extent of their growth will depend on regional and national market forces and investment decisions. Therefore, the issues addressed by the Plan focus on the following questions within the ten-year time frame of this Plan. They include:

- a. The proper location of such development.
- b. Design criteria.
- c. The continued viability of the Leesburg area's existing commercial enterprises.

RECOMMENDATIONS:

A. Areawide Recommendations

The general commercial development approach should be to promote the reinforcement of the commercial facilities and development potential within the Town while locating new commercial areas in the planning area outside the Town in locations and at scales directly related to the commercial needs of the Leesburg area. The large industrial parks along the south side of Route 7 are seen as the primary locations of regional office uses. Local office uses should locate adjacent to neighborhood shopping centers located and sized to serve the adjacent residential communities.

A population increment of 5,000 - 8,000 persons over the next ten years in the Leesburg area could create a commercial market for approximately 100,000 - 150,000 square feet of shoppers goods and a similar amount of convenience commercial uses (grocers, drugs, restaurants). A portion of this 200,000 - 300,000 square feet of retail and commercial space should be located in two moderately sized neighborhood commercial centers outside the current Town boundaries.

The neighborhood commercial centers should range in size from 60,000 to 100,000 square feet. The shopping areas should be located adjacent to, but not in the midst of residential areas, and commercial centers should not be located adjacent to schools or parks. The commercial centers should have direct access to arterial roadways that have existing traffic capacity, but not have direct access to Route 15, Route 7 or the Leesburg Bypass. Local office and institutional uses are appropriate in locations adjacent to the commercial areas, particularly when they form a land use buffer with residential uses. Strip or ribbon commercial development is to be precluded if at all possible. Shopping area design should take the cluster or plaza form, set back from the roadways, particularly from the Leesburg Bypass and Route 15. Strip commercial development should be avoided to help retain the identity of the Town. This can be achieved through such land use techniques as the strategic location of landscape buffers, earth berms, reverse frontage development and additional building setbacks from the road right-of-way. These techniques should be considered along all arterial and major roadways, but should be required along Route 15, the Route 15 Bypass, Route 7 and the W&OD Trail.

Shopping areas should also incorporate landscaped parking lots designed to reduce visual monotony and heat buildup. Commercial access should also be readily accessible from pedestrian pathways and trails linked to adjacent residential neighborhoods.

B. Recommendations by Planning District:

1. White's Ferry

This area is recommended to remain in low density agricultural/residential use, except for the institutional uses of Springwood and Morven Park, and a small residential area adjacent to the northeast boundary of Leesburg. No retail commercial sites are recommended in this area.

2. Catoctin Ridge

No new commercial facilities are recommended in this planning district due to the slopes and rural residential-forest preservation land use recommended for this planning district.

3. Edwards Ferry

More than 250 acres of this planning district are currently zoned C-1 Commercial. It is recommended that a portion (10-20 acres) of this property be retained in commercial zoning for a neighborhood shopping center to serve the adjacent potential residential communities to the northeast and west. Office park and other noncommercial and institutional uses are a more appropriate development pattern on the remaining 200 acres of commercially zoned land (see section on Industrial and Employment). A distinct design character similar to that of the historic Town of Leesburg is recommended both for office and retail uses.

4. Leesburg

Leesburg should continue to provide a location for a large proportion of the area's office, commercial and industrial uses, particularly auto service related uses and offices supporting and supported by the County government. Ample zoned land exists for such future uses within the Town.

5. Lower Tuscarora

While the EURAM property and north portion of the Cardinal Industrial Park, as well as the Small Business Investment Inc. site inside the Leesburg Bypass on the south side of Route 7, are zoned for retail commercial uses, it is recommended that these sites not be the location of neighborhood convenience commercial service such as food or drug stores. These high-traffic community service facilities should not be located along Route 7, but rather should be adjacent to residential areas. Regional service offices, motel/conference centers, home furnishings and restaurant uses in conjunction with motel/conference centers or as integral portions of an office park are the appropriate uses in the commercial areas in this district. The development of internal service roads is critical to the proper traffic functions in this area immediately east of Leesburg.

6. Upper Tuscarora

A neighborhood scale commercial shopping center of approximately 60,000 - 100,000 square feet should be located between Route 15 and Evergreen Mill Road (Route 621). Adjacent locally oriented offices designed to be compatible and in scale with the neighborhood commercial center would also be appropriate in this area (See Industrial and Employment Plan, Page 150. Such a community commercial center would be designed to provide primarily local convenience shopping services to the potential 1,500 - 2,000 households in the area within one-half mile to the east and west. It should not front on or access to Route 15 (which should be protected by a visual buffer and set backs) and should be directly linked by new roads to the new residential communities to the east or west.

7. Airport

Limited airport service retail/commercial facilities such as rental car uses and offices would be appropriate in the employment designated areas located around the runway areas and along Route 654 (see Industrial/Employment section). However, extreme care must be taken in the site location and design process to make such uses compatible with nearby residences. Such airport service uses could be accommodated in planned industrial parks.

8. Goose Creek

No retail commercial uses are recommended, except for incidental sales related to the rock quarries.

9. Sycolin

No new commercial zoning is recommended in this planning district due to the recommended rural residential and agricultural land use.

10. Oatlands

No new commercial facilities are recommended in this planning district due to the recommended rural residential and agricultural land use.

INDUSTRIAL AND EMPLOYMENT PLAN

INTRODUCTION

Industrial and employment growth in the Leesburg Area is of great importance to the Town and the County in that it can provide local jobs for residents and a sound tax base for the County. The need for industrial growth is self-evident since a sound tax base is the basis for an improved level of public services.

Many external factors affect economic development including inflation, energy, federal actions and private sector economic health. An important facet of this area plan is the promotion of economic growth in a manner consistent with the existing character and identity of the Town of Leesburg and the Planning Area as a whole.

BACKGROUND

A. Existing Land Use

There are approximately 1,600 acres of industrially zoned land within the Leesburg Planning Area. Only a very small portion, approximately 20 acres, has been developed to date. Those developed properties include the Federal Aviation Administration Air Traffic Control Center and auto service uses on the adjacent PD-IP property, the Rehau Inc. property located east of the Route 15 Bypass off Edwards Ferry Road, and the Tri-County Asphalt and Virginia Trap Rock Quarry south of Route 7 off Route 653.

Other large employment uses in the area which are not zoned industrial include the Luck Quarry south of Route 7 off of Route 659 and the Xerox Training Center north of Route 7 at 659. Both of these operations are permitted by special exception in the A-3 Agricultural/Residential District. Other major employment uses in the planning area which are noncommercial and industrial or institutional in nature and which are located in the A-3 zoning district include the National Children's Rehabilitation Center west of Leesburg and the Morven Park Equestrian Institute and Springwood Psychiatric Hospital to the north in the White's Ferry Planning District. In addition, aircraft servicing operations are located south of Leesburg around Godfrey Field, the Town airport.

The two major industries in the area, tourism and agriculture, are dispersed throughout the vicinity and should be complemented rather than damaged by new economic growth. Both of these industries are basic to the local economy in that they bring in many dollars from outside Loudoun County but do not raise public service costs because they do not bring in new residents.

B. Zoning Patterns and Proposals

In the past three years approximately 1,000 acres of land, primarily located on the south side of Route 7 within two miles of the Route 15 Bypass have been rezoned to Planned Industrial Park (PD-IP) or Planned General Industry (PD-GI) categories. These properties include the Leegate Industrial Park (370 acres), Cardinal Industrial Park (50 acres) and East Leesburg Hills (319 acres). The property located off of Route 653 south of Route 7 is zoned for heavy industrial uses such as the existing quarry operations located nearby. In addition, an undeveloped PD-IP property is located to the west of Godfrey Field.

MAJOR ISSUES

With 1,600+ acres of land zoned for industrial uses, there is an adequate amount of land available for industrial and related employment uses in the Leesburg area. All the aforementioned industrially zoned properties, as well as those requesting rezoning, can be provided with central sewer and water from Leesburg and are either traversed by sewer and water lines or are within several hundred feet of such utilities.

At this time, the question of the future rate of employment growth and the most desirable mix of employment uses cannot be definitely answered. But it is the objective of this plan to spell out the proper location and relationship of employment uses to other land uses in the planning area, while not precluding a wide range of environmentally compatible employment uses. Therefore, the following land use recommendations primarily address the development issues of accessibility, zoning patterns, the proper provision of utility services, and proper, sensitive site design.

RECOMMENDATIONS

A. Areawide Recommendations:

Industrial Development Criteria:

1. Office and heavy industrial uses should have proper access to the major collector or primary roadways and they should share access points to those major collector roads in order to keep the number and frequency of such access points to a minimum.

2. All office and industrial land uses should be buffered from major highways. Parking areas for industrial and other employment uses should be clustered and visually hidden from State roads by the use of set backs, berms, fence screens, vegetation, proper siting and other design techniques. Parking areas should be landscaped in order to avoid visual monotony and reduce heat buildup. Pedestrian and bicycle trails and paths should be designed to provide convenient access from nearby residential areas to employment centers.
3. Parking areas for industrial and other employment uses should be clustered and visually hidden from State roads by the use of berms, fence screens, vegetation, proper siting and other design techniques.
4. Industrial development should be located on relatively flat land with a maximum slope of 5%. The design and layout should incorporate existing natural features such as streams, hills and woodlands.
5. Planned industrial developments should include related land uses for employees, such as restaurants, stores and open space park areas.

B. Recommendations by Planning District

Future industrial/employment land uses should be focused in the following areas: the south side of Route 7 east of Leesburg, adjacent to the Route 15 Bypass at Route 7 and between the north portion of the Leesburg Airport and Route 654. Smaller employment concentrations, primarily of local office nature, could be located adjacent to the community commercial centers between Route 15 and Evergreen Mill Road south of the Route 15 Bypass and adjacent to the Carr/International Pavilion/Rehau Plastics area east of Leesburg.

1. White's Ferry

This rural agricultural area is not an appropriate location for any additional non-agricultural related employment or industrial uses except for orderly expansion of Morven Park Equestrian Institute and Springwood Institute.

2. Edwards Ferry

Office park uses are proposed in the northeast and southeast quadrants of the California Road/Route 15 Bypass intersection. In addition to office uses, other employment uses which are less intensive in nature and more compatible with residences are proposed for land northeast of the Edwards Ferry/Route 15 Bypass intersection, and south of the Rehau Inc. property.

3. Goose Creek

No new employment centers north of Route 7 should be developed except those employment uses which are compatible with and supportive of the existing training center.

The area immediately adjacent to the Luck Stone Quarry on the south should be considered for future quarry expansion. Such expansion should be subject to special permit conditions upon detailed operational and reclamation plans with special emphasis given to mitigating any impacts on Goose Creek and the Fairfax City water impoundment.

4. Lower Tuscarora

This district should be the primary location of industrial and regional office uses in the Leesburg area. Most employment uses should be located on the south side of Route 7. Agriculturally zoned land on the south side of Route 7 should be considered for office or industrial park land use. The commercially zoned land on the south side of Route 7 which is bisected by the Route 15 Bypass should be considered for office use instead of the existing commercial zoning, in order to reduce turning movements and traffic entering Route 7 near the Route 7/Route 15 Bypass. On the north side of Route 7, no property east of the ULL should be zoned for employment. The proposed site of the Mintjens factory should be moved to a site adjacent to the existing EURAM commercial facility, preferably to the west or north within the existing PD-CH zoning district. The site should be properly screened. The property to the north of EURAM, presently zoned PDH-30 should be rezoned to accommodate a density of no more than eight dwelling units per acre if transportation improvements are provided and easements warranting density transfer are secured. Property between EURAM and the Urban Limit Line should be rezoned to the PD-OP zoning category to serve as a transition between the commercial property to the west and the A-3

zoning district to the east and the residential land uses to the north. Property on the north side of Route 7, now zoned R-2, west of EURAM is an appropriate location for office park uses. On the south side of Route 7, development plans for the western portions of the existing PD-GI and PD-IP properties known as East Leesburg Hills and Leegate should employ land use buffers, via maintenance of existing vegetation and/or use of berms and sensitive site design, thereby promoting land use compatibility with the residential areas directly to the west.

5. Upper Tuscarora

The locale of the proposed neighborhood commercial center on the Meadows Farm property between Route 15 and Route 621 is an appropriate site for local offices of a scale and nature compatible with adjacent commercial and residential areas. No other major employment uses should be located in this district except for the parts of East Leesburg Hills and Leegate which extend into the district.

6. Airport

The property north of the existing runway extending west to the existing PD-IP zone should be considered an appropriate site of light industrial and office park uses (see Figure 6, page 29). The southern portion of the property north of Route 654 is not an appropriate residential area and should be considered for employment, open space or other non-commercial, non-residential uses which would be compatible with intensive aircraft noise and landing/take off patterns. The northern portion of the property would be appropriate for residential uses. The area between the runways and the southwest intersection of Route 654 and Sycolin Road should also be considered for office and industrial park uses.

7. Sycolin

The existing I-1 zoned property served by a package treatment plant adjacent to the W&OD Trail should be considered for expansion to include the adjacent agriculturally zoned property to the west. However, such land is only to be sewered by gravity to the treatment plant and no other employment/industrial uses should be authorized in the Sycolin district.

8. Oatlands

This rural, agricultural area is not an appropriate location for employment-industrial uses.

9. Catoctin Ridge

The upland ridges are not appropriate locations for industrial or employment land uses except for planned expansion of the National Children's Rehabilitation Center.